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#### ELECTRICAL MERCHANDISE SELLING ELECTRICITY

VOLUME XII

MAY, 1913

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PUBLISHED MONTHLY BY THE RAE COMPANY
FRANK B. RAE, Jr., President and Treasurer
EARL E. WHITEHORNE, Vice-President
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17 Madison Avenue

New York City



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Two Factories

# ELECTRICITY SELLING ELECTRICITY

Edited by FRANK B. RAE, Jr.

EARL E. WHITEHORNE, Managing Editor

#### President Tait's Personal Message

Chief Executive of National Electric Light Association Gives Optimistic Outline of Year's Work.

By Frank B. RAE, JR.



HE Dayton flood drowned out pretty nearly everything in Dayton except Frank Tait's optimism.

Although his plants were under twelve feet of water for several days; although his every machine had to

be dried out, and in some instances practically rebuilt and every wire tested; although he couldn't shave for nearly a week nor obtain water for a bath for over a week; although his company stood to lose a large sum of money—Frank M. Tait, President of the National Electric Light Association and the most conspicuous example of modern central station commercialism, is as serenely optimistic as a man with a million-dollar

legacy.

President Tait is a modest man. The publicity which centered about him and his company as the result of the splendid work accomplished in rescuing his plant from the flood and giving light and power to the stricken city, is not at all to his liking. He passes the credit along to those of his fellow central station men and managers who sent men and material to his aid and without whose co-operation, he says, it would have been impossible for Dayton to have had electricity for weeks after the inundation, instead of days, as was the case. The Commonwealth Edison Company of Chicago, the New York Edison Company, the Cleveland Electric Illuminating Company, the Toledo Railway and Light Company, the electrical factories and others all responded when his long distance telephone calls for assistance were heard. Men and materials were hurried forward without regard to expense. The ordinary rules of traffic were disregarded. Upper berths of sleeping cars were filled with tools and materials while the men to wield them slept below. Skilled electrical workers came through as express, sleeping on the packing cases which held materials for the reconstruction. None of those appealed to, stopped to ask what it would cost or who would pay the bill. Tait asked for help and he got it. Which, after all, is as great a compliment to Frank M. Tait as to the men who came to his assistance.

The work of digging the delicate electrical

machinery out of the muck and of putting it into commission was accomplished in record time. The first step was to give the city light. A number of 500-watt Mazda lamps, shipped in as special express by the National people of Cleveland, and with a messenger accompanying the same, were the first lights to burn. This relieved the work of the soldiery, and the arc lighting which soon followed resulted in their withdrawal at the rate of 1,000 soldiers for every 300 street arc lamps connected. The next step was to pump out the flooded



Frank M. Tait, President National Electric Light Association.

cellars. The Dayton Power & Light Company—which means Frank M. Tait—accepted this work as its contribution to the relief of the city. This was done as rapidly as pumps could be secured. Finally, the company went after the commercial work and gave power and light to everybody, friend and foe, according to his needs. Temporary construction was rushed in every direction. Private plant owners, drowned out and unable to get their own machinery to turn, were "hooked up" on exactly the same terms as the company's most enthusiastic friends.

Today, Dayton is a regular city, and the electrical business connected approximates the business on circuit before the devastation. There is a lesson here for the man who is short-sighted when looking for the silver lining on the cloud of adversity.

This suggestion of the recent experience of President Tait is given to show the unbounded optimism of the leader of the Association, and as evidence of the hopefully aggressive personality which has shaped the Association policies this year. Before, during, and since his trying experience, he has not permitted the interests of the Association to become lost: in fact, one of his first telegrams was to Vice President McCall and Scott asking them to keep the Association work going at speed until such time as the Dayton situation was under control.

"In spite of my personal difficulties," said Mr. Tait in an interview, "the work of the Association this year has not suffered. This is entirely due to the loyal and tireless effort of Secretary Martin and his staff and to every member to whom we have entrusted the Association's committee work, reports, and papers, and to the wonderful cooperation of the able men on the various committees who have given freely, and often at great personal sacrifice, of their own and their companies' time.

Perhaps the most interesting and practical accomplishment within my administration has been the exceedingly delicate and tactful operations of the Public Policy Committee under the Chairmanship of Arthur Williams of New York. This Committee realized that conditions which arise where two or more companies are in competition in a single territory do more harm to the industry at large than any other single factor. Rate wars and cut-throat policies react upon all of us. They are wasteful and unnecessary and the public sooner or later has to foot the bills. Acting upon this basis, the Public Policy Committee has accomplished much excellent work in bringing antagonistic interests into har-Mr. Williams's report of this and mony. other work will be most interesting and will suggest a field for future activity.

"The labors of the Rate Research Committee are also worthy of praise and study.

Under E. W. Lloyd, this Committee has accomplished wonders. The bulletins they have issued are eloquent of their ability and energy, and this is the more noteworthy because Mr. Lloyd has also carried on most successfully the work of the Commercial Section, besides holding one of the most difficult commercial positions in the entire central station industry.

"When I came into office, it was to find a well-defined need for more perfect clerical and mechanical office organization. Secretary Martin was overburdened with detail; the force was organized for an association of perhaps 5,000 members and was trying to serve 10,000. To correct this condition, a great deal of thought and labor has been expended in thoroughly overhauling not only the organization but the routine, accommodating it not to 10,000 members, but looking towards 25,000 mem-Expert accountants have completely audited and then remodeled the book-keeping system. New and improved equipment has been purchased. The Secretary has been given a competent assistant. The entire 'service department' of the Association has been put on a basis of high efficiency with a minimum of 'lost motion. Today, I can say without boasting that the National Electric Light Association is able to give, and does give, the most complete service to its members of any association of its kind.

"That is a point I would emphasize—the service of the association. There is not a problem in central station management, policy, rate making, contracts, franchises, finance, book-keeping, office routine, commercial work, or engineering, which we are not ready, willing and equipped to cooperate in an intelligent manner with our whole membership.

"Getting down to the Chicago Convention, I feel that it is going to be the greatest in the history of the Association, not alone in point of numbers, but because I believe that many vital subjects will be presented and discussed. The tendency has been to get away from technicalities and to get

down to hard facts. This year, the Commercial Section meetings will have the strongest program they have so far offered. Mr. Lloyd has done great work here as he has with his Rate Research. He will give us a program full of human interest—alive with facts and figures which enter into the daily problems of the men who are working for records and endeavoring to sell the central station's output at a satisfactory price.

"Personally, I think that the 'man on the firing line' is perhaps one of the most important men in the central station organization, and that the big, vital, daily problems of the industry are those which have to do with the rapid expansion of the business along profitable lines. I feel that everything in central station work today is very largely subservient to the development of high efficiency in business management and business getting, and all of which is interlocked with the engineering as well as the financial side of our great business."

It is hardly necessary to comment upon these words from the President of the Association. With a chief executive so thoroughly and enthusiastically in sympathy with the work of the Commercial Section, and with the intense optimism which his words convey, none can doubt that at the Chicago Convention the commercial men will come into their own.

Nor can anyone doubt that this Convention will set a high mark for the future. The program is a very poor index of the vast amount of useful, even vital work accomplished in the past year. From what has been said by those in close touch with various committees, it is a safe prediction to state that 1913 marks the maximum of practicality in association work.

Probably 7,500 delegates and guests will be registered in the Convention headquarters at the El Medinah Temple, Chicago, before the official count is closed. Hundreds of men will be able to attend this year who have never attended before, simply because Chicago is the most convenient convention city for the many hundreds of central

station men of the middle west. For the first time, we believe, a special Convention train will be run from the Pacific Coast. For the first time, such a train runs from the Southeastern States. Literally thousands of men connected with the manufacturing interests will rearrange their routes to be in Chicago to meet and entertain the central station men, their friends and customers.

Nor is the attraction entirely one for commercial men. The value and importance of the Accountants' Section has drawn into the Association a large number of those interested primarily in the problems of book-keeping and routine. These men, whom we have been wont to look upon as rather unimportant cogs in the central station machinery, have opened our eyes while themselves awakening to the possibilities of their work. The men of the ledgers and adding machines will be there—and at least several of their papers will give us a new insight into the value of commercial business accountancy, office methods, laborsaving machinery, and the like.

saving machinery, and the like.

Not the least interesting and valuable feature will be the extemporaneous addresses of prominent men outside the electrical industry. Each year the association has listened with profit to one or another leader in fields of commerce or finance. Such addresses the stay-at-homes miss, for the brief reports never carry the speaker's complete message.

Figured from any angle, the 1913 Convention will be worth many times its cost to every delegate attending. Not alone are the papers and discussion of value, but the personal contact, the impromptu discussions between sessions, the exhibits of every new and improved device; finally, the enthusiasm and feeling of fellowship with the finest and most progressive industry in this big, round world—those are the things which make attendance upon the Convention of the National Electric Light Association at once the duty and privilege of every electrical man, big and little, in America. Be sure, then, to go to the Chicago Convention.



Chicago Convention Headquarters. Medinah Temple will make a beautiful setting for the greatest electrical gathering ever known.



#### The Greatest Yet in Size-In Merchandising Spirit

Personal Messages From the Heads of Sections and Committees Point to the N. E. L. A. Opportunity for YOU



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in hiH-E annual Convention of the National Electric Light Association this year will be held on middle ground. Hence, it is not surprising that the attendance of delegates will be the largest and most representative

and the list of exhibits the most comprehensive in the history of the Association.

Earlier conventions drew most heavily from the East; last year's most heavily from the West. But the Chicago Convention will bring the electrical interests of East, West and South together as never before, and as no other city could. This is, of course, as it should be. Each section of the country has something to teach to the other, the Easterners particularly needing first-hand contact with the visions, the enthusiasms, the new ideas and the wonderful achievements of the Far West.

However, favorable locality and its opportunity for country-wide representation is not the only importance of the thirty-sixth Convention. The industry itself, particularly on the commercial side, has made tremendous strides since the Seattle Convention. Electricity, which has been dreaming of Merchandising Spirit for so long, is on the verge of realizing it. The rapid crystallization of the Society for Electrical Development from an idea to a

fact is perhaps the best evidence that an electrical era of merchandising ways and methods is close at hand.

In all the papers, reports, discussions and publications appertaining to the business end of the industry, we therefore may



E. W. Lloyd, Chairman Commercial Section.

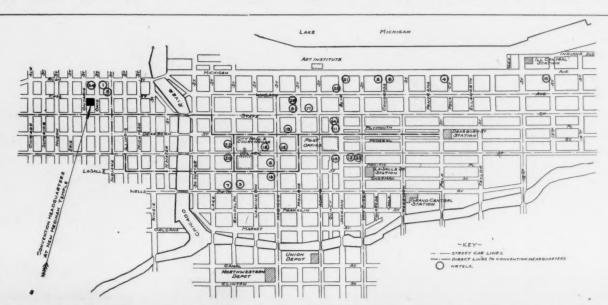
reasonably expect far less of untried theory and far more of constructive, experiencetested suggestion than earlier conventions could possibly supply. It cannot help but be so. For everywhere the electric man is earnestly striving to learn and apply the ways of the merchant to his business. When he thinks that he has the right idea, he tries it on his field, and he wins—or loses. Either way, he is making commercial history that enriches each succeeding Convention.

Probably, too, a new liberality and gettogether spirit will characterize the Chicago Convention. There is ample evidence as to how earnestly the various elements in the industry are striving to reach a common working ground. Electrical men are no longer merely mouthing a desire for harmonious cooperation, they really want it because they see that it is absolutely essential to their individual business success. It is one of the surest signs of a general quickening of commercial intelligence in the industry. Chicago surely will witness more of the new spirit than any previous gathering of electrical interests has witnessed.

But let the Commercial Section Chairman tell you just what your opportunity will be at the thirty-sixth Convention. The committees have been hard at work weaving the fabric for the "best one yet" ever since the Seattle Convention, and their chiefs really have something to tell you.

From Edward W. Lloyd, Chairman Commercial Section:

"During the past year the Commercial



Map of Central Portion of Chicago. Showing Locations of Convention Hall, Street Car Lines and leading Hotels. For list of Hotels see Page 122.

Section Executive Committee has had frequent meetings at which have been discussed ways and means of putting the Commercial Section on a sound basis both financially and as an important adjunct to the National Electric Light Association. The place commercial men have taken in the industry in the last ten years has fully justified the existence of the Section, but the difficulties that we encountered after its establishment under the guidance of Mr. George Williams at the St. Louis Convention and in the following year under the Chairmanship of Mr. H. J. Gille, were very great and could hardly be appreciated by anyone who was not intimately in touch with the committee work.

with the committee work.
"Although it was voted to allow the Commercial Section the \$2.50 annual dues



Theodore I. Jones, Gen. Sales Agent, Edison Electrical Illuminating Co., Brooklyn, N. Y.

as its sole financial income, this amount has never been adequate for the complete support of the Section, and up to the past year we have been compelled to request our friends, the manufacturers, to support some of the work that has been done. In addition to this, the main body of the Association has rendered financial assistance.

"Last year, the Section formulated a plan of selling to member companies pamphlets, covering certain branches of the industry, which could be distributed by them to prospects. The matter compiled was donated by members of the several committees and a large amount of time was put on this work by willing workers, who deserve a great deal of credit for the results already accomplished. The sale of these publications has been such that the Commercial Section today is able to finance itself without outside assistance, but this condition can only be maintained either by the continuance of the publication and sale of such pamphlets or by the building up of the membership of the Section. The latter plan seems to be the most desirable.

"The Commercial Section feels that the distribution of this sort of literature is necessary and is filling a long felt want. It is very difficult for smaller companies to get out high-class-literature at a price they can afford to pay and there are many branches of the business that are not propally advertised.

perly advertised.

"The reports and papers presented by the Commercial Section have on the whole been of high value and any man in the Commercial end of the business, receives the full value of his dues from the matter presented. In addition to these reports and papers, has been published the Electrical Salesmen's Handbook, the first issue of which was delivered at the 1912 Convention. Since then there have been four quarterly issues. This publication contains extremely valuable data that could not be secured from any other source. This work will be continued. While the majority of the data submitted has been on power installations, it was thought at the beginning that there was a greater demand for information of this class. In the future, the Handbook will endeavor to publish in-formation regarding other branches of the business such as the science of illuminating engineering and any other matter that there is a demand for. The work of the Committee together with its members is deserving of the thanks of every member of the Section.

"The aim of the Commercial Section has been to deliver to its members all the information possible with the funds at its disposal. The future success of this Section should be very well assured and we hope the time will come when no man having a position of any importance in the Commercial end of the business will think of being outside the membership. The nominal annual fee paid in no way represents the value of the committee reports, papers and other matter that is placed in the hands of the members. Commercial men should consider it a duty to help support the Section, as through a large membership only can the work be done that the general committee has in mind.

"Another feature to be considered by commercial men is that appointment on Committees of the Commercial Section means work. It has been disappointing in the past to have men appointed from all parts of the country and find that many of these members do not attend committee meetings, leaving the work to a very limited number. It is not fair to the loyal body of men who have conducted this work during the last few years that these members do not attend, and companies whose men are appointed on such committees should see to it that their representatives are present

at a reasonable number of meetings. No man should accept a membership on a committee of this character unless he is satisfied that he will be able to attend to the work of the Committee.

"In addition to the regular papers and reports, two especially attractive papers will feature Section meetings at the Convention. M. Luckiesch of the National Quality Division of the General Electric Company, Cleveland, Ohio, will deliver an extremely valuable and interesting lecture on 'Light and Art.' We have also been very fortunate in securing Mr. David R. Forgan, President of the National City Bank of Chicago for an address on 'How to Protect Business from Disturbance Caused by Panics.' Mr. Forgan, from his broad experience, is particularly well qualified to speak on this subject."



John G. Learned, Asst. to Pres. Public Service Co. of Northern Ill., Chicago.

From T. I. Jones, Chairman Merchandising Committee:

"The remarkably efficient work done by the Commercial Section so far, and the results achieved, are earnests of what will unquestionably happen in the future. In each succeeding year, the activities of the Section have covered a wider commercial field, and have been more profitable to the Industry and to the individual members.

"This is what may be termed the Commercial Era among central stations. And the Commercial Section typifies that era and gives far-reaching effect to its propagands.

ganda.

"The reports of the various committees, to the coming Convention, I am sure, will be not only of unusual interest but of exceptional value. This applies to all of the reports. I am especially familiar with the work done by the Merchandising Committee of which I am Chairman, and believe that the report of this Committee will be endorsed by the Convention after a spirited



T. C. Martin, Secretary.



J. B. McCall, First Vice-President.



H. H. Scott, Second Vice-President.



W. W. Freeman, Treasurer.

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discussion, and that it will have a permanent effect in setting the appliance bureaus and electric shops of a good many of our companies in the right path, as far as the merchandising of electrical devices is concerned. The keynote of this report is one of cooperation among all the elements and agencies concerned in the sale of appliances.

"I believe that the work of the Publications Committee during the past year is also entitled to special encomium as having been particularly effective in building business for central stations, large and small, throughout the country.
"I want to say, in closing, that this year



George Williams, H. L. Doherty & Co., New York City.

has shown more than ever before the necessity for the Commercial branch of our national organization."

From H. H. Scott, Chairman Membership Committee:

"The growth of the National Electric Light Association during the past few years has been remarkable. It now comprises practically every central station company in the United States and Canada of all cities of 25,000 and over, and it is also very creditably represented in Mexico, South America, Japan and other foreign countries.

"Membership in the Association originally was confined to central stations, but after a time, it was deemed advisable to extend the opportunity to other branches. As a direct result of this more liberal policy, many of the larger manufacturers and the electrical trade journals are now included in the membership. Soon after these groups were included, came the second step, the creation of the individual membership, which took in the employees of central stations or manufacturing companies. The company and geographical sections move-ment logically followed.

"The creation of the Company Sections is largely responsible for the numerical

growth of the Association. That naturally follows, for it is almost necessary that any central station company should have some sort of an association to which all employees of the company would be eligible, and the Company Section of the National Electric Light Association seems satisfactorily to fill this need. For all the subjects that are presented before the various Sections are sent to the central office. Thus an accurate check can be kept on all the company and geographical section work, and the various committemen of the Association are in close touch with the industrious and thinking men of the industry who contribute to these Section meetings.
"The importance of the National Elec-

tric Association could be further emphasized. It is one of the largest cooperative technical bodies in the world, and the development of the electrical industry is probably more directly due to its activities than to any other one factor. Yet its work does not clash with that of kindred bodies. It simply aims to cover the general field of electricity insofar as it bears on the problems of the central station and the legitimate encourage-

ment of electrical manufacturing.
"Swift and great as has been the growth of the Association, the end is by no means yet. Peculiarly enough, many of the smaller central stations are still without the fold. Nevertheless, these companies would derive the most benefit from membership, since they could obtain the advice and ex-perience of the larger companies who naturally have in their employ men who are experienced in every branch of the industry, and who always have been most liberal in contributing to the work of the Association.

'In the light of the rapid growth of the Association, for one thing, it is expected that the Chicago Convention will be the greatest in the history of the Association. The wide scope of the program is noteworthy. Hydro-electric, accounting, commercial subjects and many others of a more general character are included. The officers of the Association have every reason to believe that the attendance this year will be not less than six thousand."

From H. G. McConnaughy, Secretary and Treasurer, Exhibition Committee:

"Previous Conventions will be completely overshadowed in the number, size and extensiveness of the exhibits. In fact, the amount of space demanded by the many exhibitors has necessitated the securing of additional space for exhibition purposes. The new Medinah Temple offers unusual facilities for our purpose. The entire lower floor, about 200 by 100 feet, with a booth space area of 10,930 square feet, has been placed at our disposal. Thus, we were

afforded sixty-eight booths of unusual pro-

"About fifty exhibitors already have been assigned floor space; and the number is growing. The Transportation Committee probably will be located on the exhibition floor, and the Commercial Section also will have a space for its headquarters and literature. The Meter Section will exhibit too. Booth decorations will be both unusual and artistic. A reasonable amount of 110 and 220 v. direct current will be supplied to exhibitors, and everything possible done to make their stay in Chicago a profitable one.



F. Becker, Jr., Gen. Sales Agt., United Electric Light & Power Co., New York City.

"The choice of Chicago, the center of the country, for the thirty-sixth Convention, affords an exceptional opportunity for the exhibitor to cover a very large territory by means of his exhibit. Furthermore, the fact that the electric light interests largely center in Chicago will probably guarantee the largest attendance of delegates in the history of the Association.'

From Stephen A. Sewall, Editor the Question Box, N. E. L. A. Bulletin:

"The department known as the Question Box has met with a very successful year. It is not alone the large increase in the questions and answers that are published in the monthly issue of the Bulletin, but a great many letters reach us asking for information direct. Hence, hundreds of answers and replies are sent direct by mail that would not be of sufficiently general interest to publish, although they prove to be of the utmost value to the parties interested. The Question Box is a clearing house for every conceivable kind of electrical information.

"We are continually receiving acknowledgments of the growing interest in and value of this department. The work that it has done justifies even greater support in the



Henry L. Doherty, Past President.



John F. Gilchrist, Past President.



C. R. Huntley, Past President.



C. L. Edgar, Past President.

future. To stimulate keener interest in our work, recently we sent out a letter to every Class A member asking him to appoint a correspondent from his company. By such means, we felt that members would be stirred to sharper interest in our work, and feel more definitely that they were a real part of the Association.

'The returns from this letter have brought us a number of correspondents, and there should be a resultant gain in questions and

answers.



H. N. McConnell, Mgr. Com. Dept. United Gas & Electric Corp., New York City

From Paul Lupke, Editor Question Box Revision:

"If you ever sent in anything, intended for publication, written on both sides of the paper you will probably know what happened to it-but-did you ever receive any publication that was not printed on both

sides of the paper?
"The publishers, very likely, have good, sound and valid reasons for their cast iron one-side-of-the-paper-only' rule and I here

give the Editor a chance to hang on a footnote briefly stating them \* (see note below). I am chiefly concerned with the advantages of a 'printed-on-one-side-of-the-paper-only' Question Box.

"It was thought, some years ago, that there was enough good stuff buried—(I use that word advisedly) in the National Electric Light Association Question Box to warrant the labor and expense necessary to undertake a revision. Well, there was a revision and only the committeemen can appreciate the difficulties of the job. And what did it really amount to? Alas-only the ceremonious reburial of the more solid material that time had not wasted away.

"But, now suppose the monthly rationsmoist from the press—were dealt out to us printed on one side of the paper only, then any 'Cubist' (see April N. E. L. A. Bulletin, page 490) could readily start his own perpetual revision by cutting out the questions or the part of them that particularly

interested him.

"These could then be assembled by subjects-detailed to the seventh decimal if needed-pasted on the sheets of a looseleaf folder properly provided with index tabs. This folder would soon grow into a handbook that (as the book agent says) 'no Central Station man could afford to be without.

'How often now do you come up against a stiff question which must be answered instanter? You scratch your head and say to yourself, 'I saw that thing fully explained somewhere in the Question Box, but'-you look hopelessly at the pile of Bulletins and

give it up.
"An expert, you know, is a man who knows where to find the thing. With this always up-to-date Question Box Revision at hand we would all be experts before long."

"N. B.—If the printer says it can't be done, buy two copies of the Bulletin and start the thing anyhow."

The above personal messages pretty well reflect, not only the spirit of the men who wrote them, but the spirit of the great organization they represent. They were hastily thrown together or dictated by exceedingly busy men, while many messages we should have liked to publish were unobtainable simply because the "men behind" found it absolutely impossible to put pen to paper or to grant a moment's interview to the representative of Electrical Merchandise before this issue went to press.

The fact is significant. Here are men giving up largely of their time, brains and experience to Association committee work, who are literally buried in their own affairs in the crowded commercial centers of great cities practically every working day in the year. One will readily grant that their own individual concerns, and those of the companies they represent, are a sufficient tax on the capacity of these men. Yet they labor for the National Electric Light Association at great personal sacrifice in order that the industry as a whole may thereby be strengthened and enriched.

Not that the benefits of the Association are so much for them as they are for the central station companies and manufacturers of smaller resource. The big fellows would prosper pretty well if the old idea of "every man for himself" still obtained in the industry. Yet when they are called upon to undertake the burden of committee work they are broad gauge enough to see that the interests of the industry as a whole transcend their own personal concerns, and that the active help of the big minds of the industry is needed to this end.

Hence the remarkable organization known as the National Electric Light Association, and the great, good work it is doing: hence the spirit of cooperation that breathes through these personal messages, the confidence that the commercial electrical era has arrived, the prophetic note of bigger and bigger things to come. And there is nothing unreasonable about the plea of these men for members to take greater and closer interest in the work of the Association. It is work that means much to every member. If the big men of the industry can spare the time from their own already overcrowded private affairs to do the work of the Association, why shouldn't the members spare the time at least to take interest



E. L. Callahan, Mgr. New Bus. Dept. H. M. Byllesby & Co., Chicago, Ill.

in and support this work? In the ultimate, it is the only fair thing to do, and it's the only way to make the National Electric Light Association, to the last degree, a permanent and profitable success.

#### Manufacturers to Entertain Guests

One of the pleasant recollections of the Chicago Convention for many delegates will be the visits to local manufacturing Visiting manufacturers in kindred lines will enjoy such visits for the new insight they will derive from seeing how the other fellow does it. They are sure to carry home with them fresh ideas and valuable constructive suggestions. Central station men will take such trips perhaps for no better reason than to see how things are made. But they really will see far more. They will see that the electric washing machine industry or the electric sign or flasher industry, is a much bigger institution than perhaps they had realized. They will see that these enterprising manufacturers are offering them a big opportunity of which they could make vigorous and profitable use in their own territory. Finally, they will realize that manufacturers' cooperation, about which they hear so much, is a much more real and vital thing, viewed from close-at-hand, than they would have been willing to believe viewing it perhaps from hundreds of miles away.

(Continued on page 122)



Frank W. Frueauff, Past President.



Dudley Farrand, Past President.



W. H. Blood, Jr., Past President,



Arthur Williams, Past President.

#### The Convention Program National Electric Light Association Chicago, June 2-6

General, Executive, Technical, Commercial, Accounting, Hydro-Electric and Public Sessions

TUESDAY, 10 A. M., Main Auditorium, Room No. 1

First General Session
1—Welcome to the City; 2—Address of President Tait; 3—Announcements; 4—Report of the Committee on Organization of the Industry—H.
H. Scott; 5—Report of Secretary—T. C. Martin; 6—Report of Insurance Expert—W. H. Blood, Jr., 7—Report of Committee on Progress—T. C. Martin; 8—Report on Question Box—S. A. Sewall; 9—Paper: Anticipation—Paul Lunke tion-Paul Lupke.

TUESDAY, 2:30 P. M., Main Auditorium, Room No. 1

First Technical Session

1—Report of Meter Committee (with Third Edition of Code for Electricity Meters)—W. H. Fellows; 2—Report of Committee on Grounding Secondaries—W. H. Blood, Jr., 3—Report of Lamp Committee—Frank W. Smith; 4—New Incandescent Lamp Development—J. E. Randall; 5—Paper: The Incandescent Lamp and Its Relation to Lighting Service—R. E. Campbell and W. C. Cooper; 6—Report of Committee on Measurements and Values—Dr. A. E. Kennelly.

TUESDAY, 2:30 P. M., Lawn Tent, Room No. 2

First Commercial Session
1—Address of Chairman of the Section—Edward W. Lloyd; 2—Report of Finance Committee—T. I. Jones; 3—Report of Membership Committee—J. F. Becker; 4—Report of Publications Committee Douglass Burnett; 5—Address: How to Protect Business from Disturbance Caused by Panics—David R. Forgan; 6—Report of Electric Salesmen's Handbook Committee—E. L. Callahan.

TUESDAY, 2:30 P. M., Temple Parlor, Room No. 3

First Accounting Session
1—Report of Committee on Uniform System of Accounts—E. J. Bowers; 2—Paper: Accounting School and Education of Employees—A. L. Holme; 3—Paper: Method of Keeping Prepaid and Accrued Accounts—Franklyn Heydecke; 4—Paper: Office and Mechanical Appliances, Their Uses, Economies Effected, etc.—H. L. Lohmeyer.

WEDNESDAY, 10:00 A. M., Main Auditorium, Room No. 1

First Hydro-Electric and Power Transmission Session
1—Address of Chairman of Section—W. N. Ryerson; 2—Report of Committee on Membership—R. J. McClelland; 3—Report of Committee on Progress—T. C. Martin; 4—Report on Turbines (Report being part of National Committee Report on Prime Movers)—J. F. Vaughan; 5—Paper: The New Type of Thrust Bearing—Albert Kingsbury.

WEDNESDAY, 10:00 A. M., Lawn Tent, Room No. 2

Second Commercial Session

1—Report of Committee on Education of Salesmen—George Williams;
2—Report of Committee on Electrical Merchandising—T. I. Jones; 3—
Report of Advertising Committee— J. Robert Crouse; 4—Advertising for a Small Central Station—N. H. Boynton.

WEDNESDAY, 10:00 A. M., Temple Parlor, Room No. 3

Second Accounting Session
1—Report of Sub-Committee on a Tentative Classification of Accounts Including Balance Sheet and Indicant Accounts—John L. Bailey;
2—Paper: Handling of Freight Bills—Albert S. Scott; 3—Paper: Accounting for Replacement of Plant Retired From Service—Frank A. Birch.

WEDNESDAY, 11:45 A. M., Main Auditorium, Room No. 1

Second General and Executive Session

1—Paper: Central Station Power in Coal Mines—W. A. Thomas; 2—Paper: Switching Apparatus for Rural Installations—E. B. Merriam; 3—Paper: Central Stations for Towns of 5,000 Population or Less—J. Edward Kearns.

Executive Session (12:45 Noon)
1—Action on Report of Public Policy Committee—Arthur Williams;
2—Presentation of Proposed Constitutional Amendments—Frank W. Frueauff; 3—Report of Treasurer—W. W. Freeman; 4—Election of Nominating Committee; 5—Appointment of Committee on Resolutions.

WEDNESDAY, 8:30 P. M., Main Auditorium, Room No. 1

Public Policy Session

1—Reading of Report of Public Policy Committee; 2—Address by Samuel Insull; 3—Report of Commission on Resuscitation from Shock—W. C. L. Eglin; 4—Lecture on Accident Prevention in Public Utilities—

J. B. Douglas (illustrated by Lantern Slides); 5—Musical Exercises during the evening, N. E. L. A. Section Band, Commonwealth Edison Company.

THURSDAY, 10:00 A. M., Main Auditorium, Room No. 1

Second Technical Session

Second Technical Session

1—Report of Committee on Prime Movers—I. E. Moultrop; 2—Report of Committee on Electrical Apparatus—L. L. Elden; 3—Paper: Switchboard Instruments—Paul MacGahan; 4—Paper: Latest Developments in Distributing Transformers—E. G. Reed; 5—Paper: The Use of the Telephone in Central Stations—Angus Hibbard; 6—Report of Overhead Line Construction Committee—Farley Osgood.

THURSDAY, 10:00 A. M., Lawn Tent, Room No. 2

Third Commercial Session
1—Reports of Electricity on the Farm Committees—(a) Eastern States, John C. Parker; (b) Middle States, C. W. PenDell; (c) Western States, Stanley V. Walton; 2—Report of Committee on Wiring of Existing Buildings—Robert S. Hale.

THURSDAY, 10:00 A. M., Temple Parlor, Room No. 3

Third Accounting Session

1—Report of Sub-Committee on Statistics and Forms—C. L. Campbell; H. Spoehrer; 2—Paper: Obligations of the Bookkeeping Department to the Operating Department—H. Patterson; 3—Paper Handling of Bond Coupons—W. J. Kehl.

THURSDAY, 2:30 P. M., Main Auditorium, Room No. 1

Second Hydro-Electric and Power Transmission Session

1—Paper: Poles and Pole Preservation—R. A. Griffin; 2—Paper: Lighting Arresters—E. E. F. Creighton; 3—Developments in Protective Apparatus—Paper: J. N. Mahoney; 4—Lecture: The System of the Mississippi River Power Co.—Hugh L. Cooper (Illustrated by Lantern).

THURSDAY, 2:30 P. M., Lawn Tent, Room No. 2

Fourth Commercial Session

1—Report of Committee on Ice and Refrigeration—George H. Jones; 2—Report of Committee on Short Cuts in Executing Customers' Orders—George C. Holberton; 3—Report of Committee on Steam Heating—S. Morgan Bushnell; 4—Report of Nominating Committee; 5—Election of Officers.

THURSDAY P. M.

Rejuvenation of the Sons of Jove.

FRIDAY, 10:00 A. M., Main Auditorium, Room No. 1

TRIDAY, 10:00 A. M., Main Auditorium, Room No. 1

Third General and Fifth Commercial Session
1—Report of Rate Research Committee—E. W. Lloyd; 2—Report
of Street Lighting Committee—John W. Lieb; 3—Paper: Arc Lamps
and Recent Developments Thereof—W. A. Darrah; 4—Paper: Advantages
of Copper Clad Wire for Series Arc Lighting—T. K. Stevenson; 5—
Report of the Committee on Underground Construction—W. L. Abbott;
6—Lecture: Light and Art—M. Luckiesch (Illustrated by Lantern
Slides); 7—Address: Objects of the Society for Electrical Development
—President Henry L. Dohecty.

FRIDAY, 10:00 A. M., Lawn Tent, Room No. 2

Third Hydro-Electric and Power Transmission Session

1—Report of Committee on Receiving Apparatus—M. R. Bump; 2—
Report of Committee on Distributing Lines—P. M. Downing; 3—Report of Committee on Operation of Water Power Systems—D. B. Rushmore; 4—Factors Producing Reliability in the Suspension Insulator—A. O. Austin; 5—Paper: Transmission Line Construction—R. D. Combs; 6—Address: Investigation of Life Hazards of High Tension Lines, By the U. S. Bureau of Standards—Dr. S. W. Stratton; 7—Election of Officers

FRIDAY, 2:30 P. M., Main Auditorium, Room No. 1

Fourth General and Third Technical Sessions
1—Paper: Transformers and Power Transmission—H. H. Rudd; 2—Paper: Railway\* Loads for Central Stations—E. P. Dillon; 3—Report of Committee on Award of Doherty Gold Medal—W. F. Wells; 4—Report of Committee on Memorials—T. C. Martin; 5—Report of Committee on Constitutional Amendments—Frank W. Frueauff; 6—Vote on Constitutional Amendments; 7—Report of Committee on Resolutions; 8—Report of Nominating Committee; 9—Election of Officers; 10—Adjournment tions; 8—Report 10—Adjournment.

Several Chicago manufacturers will embrace the Convention opportunity by one means or another. The Hurley Machine Company, 25 South Clinton Street, has extended an invitation to all delegates to visit its electric washing machine plant. Delegates who accept this invitation will be assured of an enjoyable and profitable trip.

The Federal Sign System (Electric) extends a similar invitation to delegates to visit its large, modern electric sign factory at Lake & Desplaines Streets. Making electric signs is an absorbingly interesting process, and what the sign manufacturer can and will do for the central station is something that every visiting central station man should spend an hour or two of one of the five Convention days to discover.

The Reynolds Electric Flasher Manufacturing Company, with main office and



Wm. A. Donkin, Con. Agent, Allegheny County Light Co., Pittsburgh, Pa.

factory at 617-631 West Jackson Boulevard, offers the same opportunity to the delegates. A trip to the Reynolds plant would make a fine follow-up to the Federal trip, since the big electric sign successes of the country have been made possible only by the sign manufacturers and the flasher makers working together in close cooperation. By taking in both trips, delegates will learn how exactly these two industries complement each other.

The Benjamin Electric Manufacturing Company, makers of various electrical specialties, will occupy a booth in Exhibition Hall. The selling organization of this concern from New York, San Francisco and Toronto will be present at the Convention to meet and welcome visitors from their respective sections of the country to this booth.

#### Convention Hotel Schedule

The stranger delegate at the gates of Chicago will find the map on page 117 a convenient guide to his two most important

destinations—convention headquarters and his hotel. It also outlines the city and its principal points of interest. As will be noted, the hotels are designated by number on the map. The list is as follows:

1. Alexandria, 542 Rush St

Auditorium, 430 So. Michigan Ave.
 Bismarck, 175 West Randolph St.

 Blackstone, Michigan Blvd. & Hubbard Place.

5. Bradley, 536 Rush St.

Brevoort, 120 West Madison St.
 Briggs, 188 West Randolph St.

Congress, Mich. Ave. & Congress St.
 De Jonghe, 12 East Monroe St.

10. Grand Pacific, 232 South Clark St.11. Great Northern, Jackson Blvd. and

Dearborn St. 12. Kaiserhof, 324 South Clark St.

13. La Salle, La Salle and W. Madison Sts.

14. Majestic, 29 Quincy St.15. Morrison, 83 West Madison St.

16. New Southern, 1,250 Michigan Ave.

17. Palmer House, Monroe & State Sts.18. Planters, 19 North Clark St.

Saratoga, 29 South Dearborn St.
 Sherman, N.Clark & W. Randolph Sts.

21. Stratford, Mich. Ave. & Jackson Blvd.

22. Union, 70 West Randolph St.

23. Victoria, 333 South Clark St. 24. Virginia, Ohio & Rush Sts.

25. Wellington, 241 South Wabash Ave.26. Windsor-Clifton, 38 S. Wabash Ave.

The Hotel Committee has mailed a bulletin to members of the Association, which contains full and specific information regarding the above listed hotels, and a few others that are located outside the boundaries of the map. Telephone numbers and hotel rates are included in this information.

Requests for reservations are being sent to the Committee on an addressed post card which is enclosed with the bulletin. As soon as the required reservation has been secured, the member is notified by a reservation card which gives his name and address, and the accommodation reserved for him. The delegate should present this card at the hotel desk when registering. In the event where the desired reservation cannot be secured, a reservation is offered the member with some other hotel offering similar accommodations and rates.

The high quality of the service that the Hotel Committee is offering to delegates already has been greatly appreciated. Requests for reservations have been flooding in, yet they have been handled with smoothness and little trace of confusion. The Committee's happy idea of carefully listing hotels, rates and other concrete information has helped a good deal, and the signs indicate that the largest Convention in the history of the National Electric Light Association will be comfortably housed and provided for in a manner hardly possible to previous Conventions.

#### The Convention Tours

Six Special Trains Will Carry Delegates to Chicago

G. W. Elliott, Master of Transportation, announces that six special trains will be available for delegates and their guests to the Chicago Convention. Specially reduced rates will be allowed on these trains. However, in order to obtain the benefit of the special fares, delegates must purchase round-trip tickets.

The special trains are as follows:

Train No.1. [Red Special]—From New York City [Grand Central Terminal]. Leaving at 1.00 p. m. Sunday, June 1, and leaving Albany 4.25 p. m., Schenectady 4.56 p. m., Utica 6.34 p. m., Syracuse 7.50 p. m., Rochester 9.31 p. m., Buffalo 11.15 p. m., [Eastern time] and arriving at Chicago [La Salle Depot] 12 noon, Monday, June 2. This train will be under the personal direction of F. H. Gale, Schenectady,



W. E. Quillan, Asst. Com. Mgr. H. L. Doherty & Co., New York City.

N. Y., assisted by R. D. Lillibridge, 111 Broadway, N. Y., to whom all requests for information and accommodations should be addressed, governed by relative nearness.

Train No. 2 [Pink Special]—From New York City [Pennsylvania Terminal]. Leaving at 10 o'clock a.m. Sunday, June 1, and leaving Manhattan Transfer 10.14 a.m., Newark 10.18 a.m., Elizabeth 10.27 a.m., Trenton 11.11 a.m., North Philadelphia 11.41 a.m., Harrisburg 2.34 p.m., Altoona 5.45 p.m., Pittsburgh 8.54 p.m. [Eastern time] and arriving at Chicago [Union Station] 9.00 a.m. Monday, June 2.

NOTE—In accordance with rules of the Pennsylvania Railroad no liquors will be

sold on this train.

This train will be under the personal direction of J. C. McQuiston, 165 Broadway, New York City, or East Pittsburgh, Pennsylvania, assisted by A. H. Manwaring, Philadelphia Electric Co., 10th and Chestnut Streets, Philadelphia, Pa., to whom all requests for information and accommo-



H. T. Sands, General Manager Malden Electric Co., Malden, Mass.



George N. Tidd, Gen. Man. American Gas & Electric Co., New York City.



1. L. Meloon, Gen. Mgr. National Lgt., Heat & Pwr. Co., New York City.



Alex J. Campbell, Gen. Mgr. United Elec. Lt. & Wtr. Co., Waterbury, Conn.

dations should be addressed, governed by relative nearness

Train No. 3 [Golden Poppy Special]— From San Francisco [Oakland Station]. Leaving at 8.30 a. m. May 29, reaching Salt Lake 10.30 a. m. May 30, Omaha 9.00 p. m. May 31, arriving Chicago 10.00 a. m.

This train will be under the personal direction of E. B. Strong, Rialto Building, San Francisco, Cal., to whom all requests for information, descriptive itineraries and accommodations should be addressed.

Train No. 4 [Maroon Special]—From Kansas City, Mo. Leaving via Atchison, Topeka & Santa Fe R. R. 7.00 p. m. June 1, arriving Chicago 8.45 a. m. June 2d. This train will be under the personal



Wm. Rawson Collier, Contract Agt., Georgia Ry. & Pwr. Co., Atlanta, Ga. In charge of the Magnolia Special.

direction of E. J. Bowers, Kansas City Electric Light Co., Kansas City, Mo., to whom all requests for information and

accommodations should be addressed.

Train No. 5 [Purple Special]—From St.
Louis [Union Station]. Leaving via Chicago & Eastern Illinois R. R. 10,000 o'clock p. m. June 1, arriving Chicago 7.30 a. m. June 2.

This train will be under the personal direction of H. Spoehrer, Twelfth and Locust Streets, St. Louis, Missouri, to whom

#### **Pre-Convention News**

What to See and Hear in Chicago; What to Know Beforehand.



HERE are so many sides to National Electric Light Convention so many things to hear and see and do, that one is in some danger of losing, in the hurly-burly, the very things that would be most useful.

Of course, a careful daily persual of the printed program will keep the delegate straight on what might be termed the functional side of the Convention—the sessions, the papers, the discussions. But it's the many values just underneath the surface that are more likely to be lost in the shuffle—the very matters that accentuate the profitableness of the trip.

is therefore the purpose of this series of Pre-convention Briefs to describe, in small space, some of the things that prospective delegates should see and hear and look for in Chicago, and supply miscellaneous information that will give the delegates a forehand glimpse of the spirit of the Convention, and a better appreciation of it after they get there. All the committees are working hard and these preliminary announcements are records of things that have been done, are being done and will be done to make the affair the greatest success in the history of the Association.

Read these items carefully. The very things you need most to know may be included among them.

all requests for information and accommodations should be addressed.

Train No. 6 [Magnolia Special]—From Atlanta, Ga. Leaving via Southern Railway 8.30 a. m. June 1 and arriving Chicago 9 a. m. June 2. This train is being run under the special auspices and management of the South Eastern Section N. E. L. A., whose officers have formed a committee which is in touch with every member in that

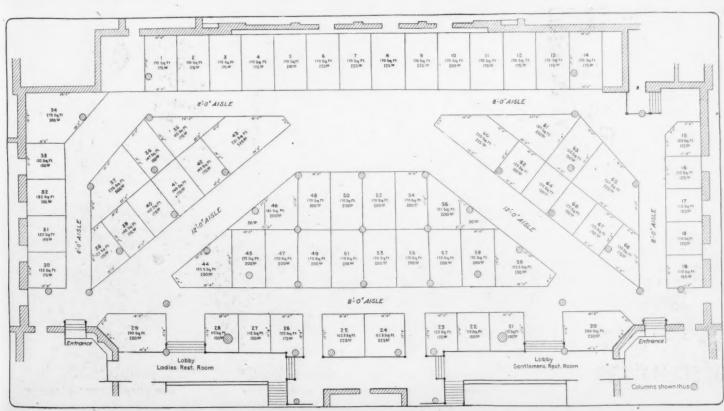
#### Exhibitors

At the time Electrical Merchandise was going to press, the following exhibitors had engaged floor space in the Temple: The Thompson Electric Co., Benjamin Electric Co., Hughes Electric Co., G. & W. Electric Specialty Co., The Electric Storage Battery Co., Duncan Electric Mfg. Co., Simplex Electric Heating Co., Engineering Department, National Quality Lamp Division of General Electric Co., Federal Sign System (Electric), Western Electric Co., Economical Electric Lamp Works of



J. C. McQuiston, Manager, Westinghouse Dept. of Publicity. Chairman, Exhibition Committee.

G. E. Co., Hotpoint Electric Heating Co., Inc., Tungstolier Works of G. E. Co., Pittsburg Transformer Co., Weston Electrical Instrument Co., Oshkosh Mfg. Co., Philadelphia Electric & Mfg. Co., Electrical Review Publishing Co., Eureka Vacuum Cleaner Co., Electrical World, Minerallac Electric Co., Duplex Metals Co., W. N. Matthews & Brother, Southern Exchange Co., John A. Roebling's Sons Company, H. W. Johns-Manville Co., Standard Underground Cable Co., Maloney Electric Co., Edison Storage Battery Co., Wm. D. McJunkin Advertising Agency, Electric Vehicle Association



This is a plan of the 68 booths available for Convention exhibitors in Medinah Temple, Chicago. They bid fair nearly all to be taken,

of America, Wagner Electric Mfg. Co., General Electric Co., General Vehicle Co., Electric Appliance Co., Sangamo Electric Co., Hurley Machine Co., Economy Fuse & Mfg. Co., Otis Elevator Co., Westinghouse Co., Metropolitan Engineering Co., Century Electric Co., Popular Electricity Magazine, Chicago Fuse Mfg. Co., The Adams-Bagnall Electric Co., American District Steam Co., Hubbard & Co.



J. R. Crouse, National Quality Division of G. E. Company.

#### Central Station Accounting Exhibit

An exhibit of between 8,000 and 10,000 forms used in the accounting departments of nearly 125 central stations will be a valuable feature in the exhibition hall. Whereas at the St. Louis convention, three years ago, the forms were grouped according to subjects, this year they will be arranged by companies, a method which should make it handy and convenient to study the plan of accountancy practiced by a given central station operating in a community of given size. The forms displayed will represent twenty-six companies in cities of 5,000 population, twenty-five in cities of 10,000, thirteen in cities of 50,000, eight in cities of 100,000, five in cities of 200,000 and six in larger communities. The sheets on which the various forms have been mounted will be assembled into volumes for the Con-



R. E. Flower, Mgr. New-Business Dept., Mobile, Ala., Electric Co.

#### The Southern Delegation

Through affiliation with the Southeastern Section and the Mississippi State Sections the central stations of six Southern states have become strongly interested in the Convention. As a consequence, many more Southern delegates than usual will take the trip to Chicago. President E. C. Deal of the Southeastern Section has appointed a committee to canvass Southern central station men—to get them aboard a special train in such numbers that the Southern delegation will take rank with that from any other section of the country. It will

be the first time in the history of national conventions that the Southern delegation has gotten together sufficiently to charter a special train.

#### What the Jovians Will Do

The Committee of Arrangements of the Jovians in Chicago is trying to keep a clear field for Thursday evening, June 5, so that the Jovians may have full swing at that time. The Committee already has planned to engage the entire capacity of the ball room, casino and cabaret at White City for the evening. It is expected that there will be several thousand Jovians in attendance, and that a class of between 200 and 250 will be initiated at that time.

#### **Association Presidents**

There have been twenty-six presidents of the Association:—James F. Morrison of Baltimore, Samuel A. Duncan of Pittsburgh, Edwin R. Weeks of Kansas City, Marsden J. Perry of Providence, Charles R. Huntley of Buffalo, James I. Ayer of St.



James E. Davidson, Gen. Mgr. Pacific Pr. & Lt. Co., Portland, Oregon.

Louis, Edward A. Armstrong of Camden, N. J., M. Judson Francisco of Rutland, Vt., C. H. Wilmerding of Chicago, Frederic Nichols of Toronto, Samuel Insull of Chicago, Alden M. Young of Waterbury, Conn., Samuel T. Carnes of Memphis, Tenn.,

James Blake Cahoon of New York, Henry L. Doherty of New York, Louis A. Ferguson of Chicago, Charles L. Edgar of Boston, Ernest, H. Davis of Williamsport, Pa., William H. Blood, jr. of Boston, Arthur Williams of New York, Dudley Farrand of Newark, N. J., William C. L. Eglin of Philadelphia, Pa., Frank W., Frueauff of Denver, W. W. Freeman of Brooklyn,



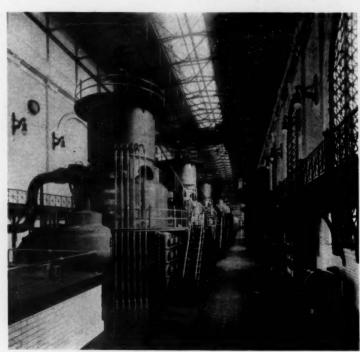
Clare N. Stannard, Secretary Denver Gas & Electric Co., Denver, Col.

John F. Gilchrist of Chicago and Frank M. Tait of Dayton, Ohio, the present incumbent.

From this list it may be ascertained that four Chicago men, Messrs. Wilmerding, Insull, Ferguson and Gilchrist have been presidents. New England also has been conspicuously well represented with five men—Messrs. Perry, Francisco, Young, Edgar and Blood. New York State and New Jersey have together claimed six men—Messrs. Huntley, Armstrong, Cahoon, Williams, Farrand and Freeman. Pennsylvania has been the home of three presidents—Messrs. Duncan, Davis, and Eglin.

#### Electric Club To Entertain

The Electric Club of Chicago has made plans to suitably entertain the delegates. President Keech has appointed a committee comprising H. E. Niesz, N. F. Obright, G. B. Foster, W. W. Hincher and H. A. Mott, to look after the matter.



Power House of the Commonwealth Edison Co., Chicago. This splendid central station plant will be open to Convention visitors.

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#### Samuel Insull, the Chairman

Samuel Insull of the Commonwealth Edison Company will serve as chairman of the General Convention and Entertainment Committee. This committee, which is made up of representative men, is as follows:

Samuel Insull, chairman, President Commonwealth Edison Company; B. E. Sunny, President Chicago Telephone Company; W. P. Sidley, Vice-President Western Electric Company, Chicago; H. L. Munroe, Manager Light and Railway Department, General Electric /Company, Chicago; T. P. Gaylord, Manager Chicago office, Westinghouse Electric and Manufacturing Company; H. R. Hixson, President Simplex Electric Company, Chicago; W. W. Low, President Electrical Appliance Company, Chicago; Godfrey H. Atkin, Chicago Manager Electric Storage Battery Company;

B. J. Arnold, President B. J. Arnold Co., Chicago; H. M. Byllesby, President H. M. Byllesby and Company, Chicago; C. A. Freeman, President Freeman, Sweet and Company, Chicago; M. B. Austin, M. B. Austin and Company, Harvey, Ill.; Frank J. Baker, Vice-President Public Service Company of Northern Illinois, Chicago; C. A. Munroe, Vice-President Public Service Company of Northern Illinois, Chicago; Homer E. Niesz, Manager Cosmopolitan Electric Company, Chicago; Martin J. Insull, Vice-President Middle West Utilities Company, Chicago; Louis A. Ferguson, Second Vice-President Commonwealth Edison Company; Peter Junkersfeld, Assistant to Second Vice-President Commonwealth Edison Company; John F. Gilchrist, assistant to President, Commonwealth Edison Company; H. E. Chubbuck, Vice-President

Chicago, Ottawa and Peoria Railway, Peoria, Ill.; Marshall E. Sampsell, President Central Illinois Public Service Company, Chicago; R. S. Wallace, Manager Peoria Gas and Electric Company, Peoria, Ill.; L. C. Haynes, President and Manager East St. Louis Light and Power Company, East St. Louis, Ill.; Frank T. Hulswit, President United Light and Railways Company, Grand Rapids, Mich.; E. W. Lloyd, Commonwealth Edison Co., Chairman Commercial Section, N. E. L. A.



W. H. Winslow, Sec. & Gen. Mgr. Superior (Wis.) Wtr., Lt. & Pwr. Co.

#### Expected Attendance

It is expected that fully 7,500 delegates and guests will attend the Convention. The Association has sent registration circulars and cards to all members of all classes with the view of obtaining prompt advance registration from members and their guests. Provided that they have properly attended to this important matter, members will find Convention badges, with their names thereon, awaiting them at the registration desk.

Every member of every class is entitled to free registration, and this side of Convention expenses is covered by the percentage dues of 1-100 of 1 per cent of the gross electrical income of all Class A member companies in cities of above 25,000 population. About \$17,500 is raised in this manner. The Class D manufacturing members meet their share by paying \$5.00 for each representative and male guest. However, each member may register one lady free of charge, and additional ladies at \$1.00 per badge and registration.



Wm. L. Lewis, Manager Rockville Gas & Electric Co., Rockville, Conn.

#### The Association Button

A neat N. E. L. A. button has been designed for the members of the Commercial Section. The ring is in black, the engraving blue, the lettering gold and the rest of the button in white. The Plutonian emblem of the Jovians also will be very much in evidence during the course of the Convention.

## **ELECTRIC SHOP Offers**

Many Advantages To Purchasers of

## **Electrical Goods**

of Every Description



EVERY Central Station customer in the United States can and should take advantage of the Buying Power of ELECTRIC SHOP. The Common-wealth Edison Company, owner of ELECTRIC SHOP is well established and its financial standing and opportunity for purchasing in vast quantities enable it to sell the highest quality of electrical goods of all kinds at the lowest prices. The unvarying principle of keeping merchandise of the highest quality only is strictly adhered to and it should always be remembered that ELECTRIC SHOP stands back of every article it sells.

Central Station Managers are Invited

to send us names of their best lighting customers to which they would like us to mail a copy of our new ELECTRIC SHOP Catalogue, just issued. You are also invited to visit ELECTRIC SHOP while in attendance at the June N. E. L. A. Convention in Chicago. It is only through such a visit that one may fully realize the complete stock of electrical goods, the beauty and art of the lamps displayed, and the facilities for supplying electrical merchandise, which ELECRTIC SHOP offers. The number of appliances on your lines is sure to be increased as your customers are brought to realize the number and the great convenience of modern electrical appliances.

## ELECTRIC SHOP---CHICAGO

Jackson and Michigan Boulevards

#### Working for the Curveless Curve

An Appliance Selling Plan for Building the Daylight Load.

By CRUSE CARRIEL,
Manager Retail Sales Department, Public Service Company of Northern Illinois, Chicago, Ill.



BOY who was sent to market with a sack full of rabbits lingered around all day and went back home without selling them. "Why didn't you sell them rabbits?" asked his father.

"Well," whined the boy, "they didn't nobody ask me what was in the sack."

Nowadays, if you expect to sell goods or interest people in your project or proposition, you must open your sack and shout—and then keep on shouting. It's the only way people will ever know that you have got anything in your sack to sell. They won't ask you of their own free will.

That is particularly true of the electrical appliance business which is still in its infancy. It is a pretty husky infant, but there still remains a great deal of "missionwork to be done before it can be brought down to a science. For example, the time will come when commercial illustrators will show the electrical devices in their drawings instead of the old alcohol chafing dish, the old style coffee pot, the old wash tubs and the thousand and one old appurtenances that electrical appliances are replacing. Until the time does come, however, when, unless a drawing of the average family at breakfast shows the electric percolator and toaster in action, it will not be considered true to life—until the time comes when every phase of the business is thoroughly modernized and saturated with the mer-chandising spirit—you must keep on shout-

Now, a load curve that doesn't curve is the object of attainment of every wide-awake central station manager. It is a hard problem, but for the residence load, one that is greatly simplified by the promotion of the use of every-day, daylight load-builders—the iron, the toaster, the percolator, and all of the other lamp socket devices.

However, whether you are selling irons or dredging machines, toasters, or balloons, a thorough, comprehensive selling plan is necessary. In my pilgrimages around the country I have found that the sales promotion problems of nearly all central stations are essentially the same. The plan that gives results in Los Angeles will work equally well in Chicago or New Orleans, and vice versa. Therefore, it is my idea to be quite specific in laying out a possible campaign.

In the first place, every lighting customer on your lines is a possible buyer of electrical appliances. The amount of money that can be profitably expended in sales promotion is, of course, determined by the profit on the sale together with the revenue derived from the use of the device, say for six months or a year. Let us suppose that we have decided to spend on sales cooperation the profits that would be derived from selling one per cent of the list of possible customers. We have an iron, a toaster, a percolator and the vacuum cleaner, the combined sales profit and six months revenue amounting to \$25.00. (This is purposely made low.) For the sake of convenience let us assume that we have a list of 10,000 residence lighting customers. This is where the central station "has it all over" any other merchandiser. It is not

necessary for you to get up "sign-your-name-in-the-book" contests or to paw through the telephone directory. Your lists are your own and every user of electricity for residence lighting is a possible buyer.

Under these conditions I would send to these 10,000 possibilities five letters, one each month for five months. The first letter I would make general—giving arguments for the use of these new labor and time savers, contrasting, and if possible, illustrating the old and the new methods,

and winding up with a strong bid for inquiries. Inquiries are what we are after. I would use the self-addressed return card and word it in such a way that all that would be needed is a check mark. In each of the other four letters I would take up one article with a strong selling argument, using the return card and striving to arouse interest in this article. Bear in mind that inquiries are what we are after. Direct orders by mail are possible, but that is not our chief object at this time.

Don't make your letters natural—be natural. Talk as though your prospect stood before you in the flesh. Remember that a man does not buy an article because you are you, he buys it because he needs it or he wants it. Talk about him and his needs. Bury formality and talk "man to man." Don't assume the "Dearly Beloved,

## Damp—but not discouraged!



Showing an electric pump at work in the Dayton flood district; 22 of these pumps were operated by The Dayton Power & Light Company, which supplied current for them free.

#### Dayton will be Cleaner, Safer, Better, Brighter

The City, State and National Governments are working together preparatory to making Dayton the safest city on navigable waters.

The unbounded enthusiasm and optimism of Dayton business men already are making it the busiest city in the middle west.

The progressive and aggressive policy of this Company is making it the brightest city—the City Electric—in which electricity for every purpose is available at reasonable rates.

Come to Dayton.

The Dayton Power & Light Co., Dayton, Ohio d

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we are gathered here—" attitude. If it's your nature to talk that way and you can't get away from it, have someone else write your letters.

Now granted that the letters were of the right kind, just what could we expect from them? To be ultra-conservative, let us assume that we receive a return of only one per cent on each mailing, five hundred inquiries. I believe that one per cent is too low. From one letter which I mailed to 5,500 customers, as a play to develop prospects, I recently received a return of 1,208, or 22 per cent. On the return cards space was provided for the customer to indicate three appliances in which he was interested and did not possess. From this one mailing, I developed

568 Vacuum Cleaner Prospects 474 Iron " 429 Washing Machine Prospects

393 Toaster

350 Desk Lamp

322 Percolator

240 Chafing Dish

130 Heating Pad
117 Sewing Machine Motor "

90 Curling Iron

70 Radiator 66 Tea Kettle

60 Foot Warmer

52 Disc Stove 48 Small Motor

43 Cooking Utensils

39 Grill

32 Food Warmer

25 Frying Pan

-or a total of 3,556 prospects.

However, for the sake of argument, placing the return at five hundred inquiries

of this number it would be necessary to sell one hundred average orders in order to break even. Assuming that these hundred have been sold (surely you can sell one out of every five bona fide inquiries), we still have a list of 9,500 people to whom we have gone every month for five months and explained the manifold advantages of using the electric iron, the toaster, the percolator and the cleaner. True, these people have not replied, but in most cases they are ready for a salesman's call. Now is the time to organize your sales force and have them call on every one of these 9,500 people among whom the "missionary" work, which under the old method the salesman would do, has been accomplished. The interest has been aroused. The customer is familiar with the devices the salesman is trying to sell. salesman becomes simply a "closer" and "clincher."

Think this over. Compare your present expensive personal educational work with the more economical, efficient method of direct advertising and direct prospect-by-prospect salesmanship. Better still, divide your territory and try out this scheme in one of the sections for a few months. Then compare the sales in the two sections. Compare the cost to sell. There can be but

one answer.

#### Inexpensive Ornamental Street Lighting

Edwin O. Hamlin of the Commercial Department, Buffalo General Electric Company, writes informatively regarding his plan to develop inexpensive street lighting in Buffalo through the use of home-made fixtures as follows:

"While the writer was manager of the Perry Electric Light Company, we found a side street running off from Main Street, where the merchants desired ornamental street lighting, but felt that decorative

posts were prohibitive.

"As a substitute plan, we adopted fixtures consisting of a 100-watt mazda lamp enclosed in a 12-inch opalescent globe, suspended at the end of a piece of conduit 5 feet long, which was hung horizontally from the store fronts. The whole fixture, including lamp, globe, weatherproof socket, dome holder, and conduit, wired, we sold to the merchant for \$5.00 installed, which just about covered the actual cost.

"We secured yearly contracts from every merchant on the street, and placed all of the lights on one circuit, running it along the front of the stores outside. The lights were controlled from one switch conveniently located, and we made a flat rate of \$1.00 per month for each 100-watt lamp burning from dark until 10 o'clock except Saturday, when they burned until 11 p. m.

"We arranged with the local night watchman to turn on and off, and found the arrangement very satisfactory. There being one light in front of each store, it made the spacing not over thirty-five feet apart and the effect was exceedingly good. In fact it made the lighting on this street the most attractive in town.

"In making the installation, care had to be exercised to get a perfect alignment but this is not hard to do. Many of the merchants had their names lettered on the opalescent globes in blue, thus making them useful in the day time as well as at night."

#### Pittsburgh Contractors Favor Licenses

The Jovians of Pittsburgh have adopted resolutions favoring the passage of a state law that would oblige all electrical contractors to take out licenses.

## Advantages of Brooklyn, N. Y. For Manufacturing Purposes

Manufacturers who may be considering establishing factories or changing locations, are invited to consider the advantages of Brooklyn, N. Y., for manufacturing purposes of all kinds.

#### Remarkable Waterfront, Railway and Shipping Facilities

Brooklyn contains 77 square miles and has a population in excess of 1,800,000. It stands at the gateway of the Western World, with a commercial waterfront of 31 miles, which is being largely increased by harbor operations now under way.

It has the largest docks in the world, made of steel and concrete, 1500 feet long, 150 feet wide and with a water depth of from 40 to 50 feet.

Land adjacent to this waterfront may be acquired at reasonable cost, or model factories already erected, or if desired, built to order, may be leased at equitable rentals. Railroad and shipping facilities are unexcelled. It is possible to ship or receive goods from all parts of the world merely by placing them on an elevator.

#### Unexcelled Labor Market

There is always available a plentiful supply of skilled and unskilled labor of all kinds, and strikes and lockouts are practically unknown.

There are homes at reasonable rentals for all classes, Brooklyn being an exceedingly attractive place in which to live.

#### Cheap Electric Power

Brooklyn is notable for its supply of cheap and rel able electric power for all industrial purposes. The enterprise located here may purchase its complete supply of electric energy, either alternating or direct, from the Edison Electric Illuminating Company of Brooklyn at a rate less than the cost of generating would be and is thus enabled to save a large investment for power plant purposes and to utilize this capital in the actual operations of the business.

#### A Great Industrial Community

For the reasons above enumerated, Brooklyn has become a magnet to manufacturers. A census shows that in the spring of 1912 there were 12,400 manufacturing establishments in Erooklyn with an invested capital of \$605,000,000, employing 240,500 wage earners, with a total annual wage of \$140,000,000 and producing goods valued at \$870,000,000.

To interested manufacturers or capitalists, the undersigned will be glad to supply detailed information and furnish particulars concerning desirable sites for different classes of business.

.Write for "Industrial Brooklyn" booklet

## Edison Electric Illuminating Co.

OF BROOKLYN

General Offices:

360 Pearl Street,

Brooklyn, New York

### How the N. E. L. A. Bulletin Has Come Along

With good words for the general work of the officials and committees of the National Electric Light Association flowing easily to the pen during these Pre-Convention days it comes not amiss to spare one or two for the Association Bulletin.

It is a question whether members realize how this publication has come along in the past few years in point both of swift development and the consistently high quality of its content. The editorials are invariably



E. R. Davenport, Sales Manager Narragansett Electric Lighting Co., Providence, R. I.

practical, suggestive and timely. Furthermore, its faithful reproduction of Association news is a big factor in keeping alive the interest of the members in the ideals and accomplishments of the Association.

The pages of the Bulletin are also well filled with general matter of close concern to electrical men. The department, "News of the Company Sections," keeps close tabs on the doings of member companies through the country. It helps everybody and makes the Bulletin an important clearing house for intersectional facts and ideas.

Mr. Sewall, editor of the Question Box, tells elsewhere of the increasing importance of his department.

Doubtless, one of the surest signs of the strongly intrenched position of the National Electric Light Association today is the flourishing condition of its organ.



A. V. Wainright, Gen. Mgr. Central New York Gas & Elec. Co., Geneva, N. Y.

#### **Convention Trip Contests**

Several of the Company Sections are holding contests, the winners of which will be sent at Company or Section expense to the Convention. Of course, the winners will make up a list of Conventioners quite apart from the regular delegates. plan has worked out well in previous years, and successful contestants have invariably found the experience enjoyable, profitable and inspirational. In view of the fact that Chicago is a center of the electric

light industry and inherently attractive, in many other ways, this year's crop of fortunate winners should look forward to their trip with keenest anticipatory relish.

#### Other Company Competitions

One of the pleasant items in the five days' work at Chicago will be the annual award of medals for the three best papers that have been presented before Company Sections during the year. This happy and stimulating plan was founded by Past-President Henry L. Doherty some years ago, when he offered a gold medal for the best paper. In recognition of the keen interest which has attended the annual competition for and award of this medal, Past-President Arthur Williams now has added a silver medal to be awarded for the second best paper and a bronze medal for the third best paper. Other Convention awardments will be the Frasse money prizes, which are offered, with the approval of the Executive Committee, for the best articles from members on the utilization and prevention of central-station waste in any department of a company. If this annual competition develops a batch of students of the efficiency and waste-prevention phases of central station management, its value is not lightly to be regarded.

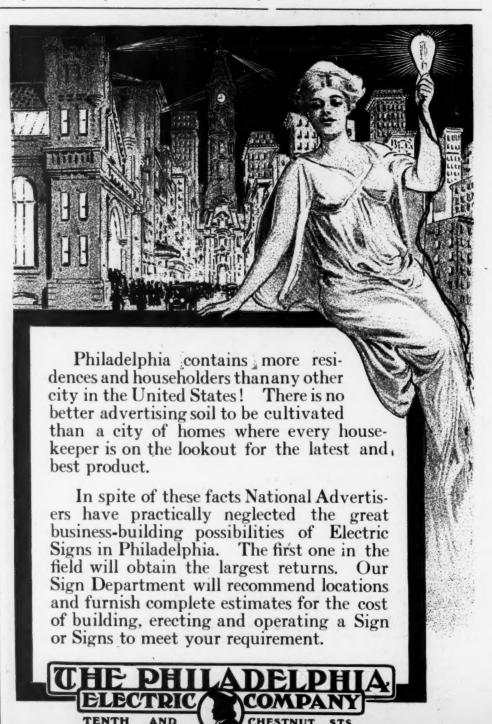
#### Tent Meetings for Commercial Section

A large tent, with ground dimensions of 50 by 85 feet and seating capacity of about 700, will house the four sessions of the Commercial Section. This tent will be located on the lawn west of the Temple Building, and is a tribute to the expected "over-" character of the Section meetings.

#### E. F. Putnam

E. F. Putnam, formerly sales engineer with the Edison Lamp Works of the General Electric Company, has been appointed commercial manager of the United Electric Light and Water Company of Greenwich, Conn.

A. H. R. Jackson A. H. R. Jackson has been appointed manager of the Jefferson City [Mo.] Light, Heat and Power Company, succeeding P. A. Bertrand. Until recently, Mr. Jackson was connected with the Illinois Traction System.



#### **Commercial Section Publications**

"Home Thoughts Electric" and Fourth Quarterly of Salesman's Handbook Now Out.

The Commercial Section has published one booklet during the year which is entitled, Home Thoughts Electric. It is a neat and handy little brochure in paper covers and handy little brochure in paper covers and has two-tint color. There is an introductory statement by Thomas A. Edison on the usefulness of electricity in every phase of home life. In the opening pages, stress is laid on the importance of electric service in the home. The general reading matter covers the field of domestic uses of electricity quite adequately and wellof electricity quite adequately and well. The subjects considered include house wiring, fixtures and glassware, the electric flatiron, electric cooking, the electric toaster, electric stoves and grills, making coffee by electricity, the electric chafing dish, the

electric sewing machine, and other appliances. Attractive illustrations strengthen the message of Home Thoughts Electric. This publication is designed for central station distribution with the view of promoting new residence business

The fourth quarterly issue of the Electrical Salesman's Handbook also is now available. It covers power data on 110 installations and abstracts of thirty-three articles. It is issued in looseleaf sheets that can be abstracted for the uses of the moment, then replaced in the binder. The most cursory glance at the index sheets will give one an adequate idea of the scope of this really valuable publication, and the wide variety of industries to which commercial electricity may be applied. It represents a fund of useful information that cannot be duplicated elsewhere. The abstracts are of articles which recently have appeared in various technical journals and supply much valuable data.

The first quarterly issue of *Electrical Salesman's Handbook* appeared September, 1912. It contained data on 119 power installations. The second quarterly appeared December, 1912, and contained data on fifty-six installations and sixteen abstracts of articles appearing in the technical and trade press: the third quarterly was issued March, 1913, and contained data on fifty-



B. C. Adams, Manager Lincoln Gas & Electric Light Co. Lincoln, Neb.

three power installations and fifteen ab stracts. Thus, the four issues for 1912-13 comprise data on 338 power installations,

and sixty-six abstracts.

The Publications Committee has a number of other booklets either under way or under consideration. For example, it is quite possible that advance copies of a booklet, Electricity on the Farm, will be ready for the Convention. It is being prepared under the supervision of J. C. Parker. It will probably be of the "Keynote" type—general and inspirational rather than specific. However, a more specific booklet, descriptive of a model farm electrified in every detail may later be published. Relative to *Electricity on the Farm*, the Publications Committee will hold a meeting at the Convention on June 2, for the purpose of receiving Mr. Parker's report as well as of



S. M. Kennedy, Gen. Agt., Southern California Edison Co., Los Angeles, Cal.

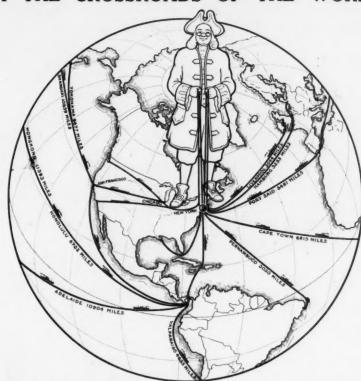
closing up the work of the committee for the year. Some representative man will be asked to write an introduction for this booklet

Another booklet, entitled Store Service is next door to being completed. John Wanamaker, or some other prominent merchant, will be asked to write an introduction for this booklet. For the first edition, 25,000 copies will be struck off. The members of the Publications Committee also have received copies of Church Lighting, a booklet issued by the Philadelphia Electric Com-This will be reissued as a Commerpany. cial Section publication.

## **NEW YORK CITY**

## UNITED SERVICE

AT THE CROSSROADS OF THE WORLD



In New York City 10% of the manufactured product of the United States is produced.

In New York City is located the greatest retail and wholesale market in the country.

In New York City will be found the largest and most diversified labor market in the United States.

In New York City ELECTRICITY is available at practically every point and at rates, for POWER and LIGHTING, that will meet every requirement.

Let us find you a site and quote you rates for current

## The United Electric Light and Power Co.

Main Office 1170 Broadway, N. Y. Telephone 4070 Mad. Sq.

Branch Office and Showroom 138 Hamilton Place, N. Y. Telephone 4000 Audubon

# DOHERTY OPERATING COMPANY

Organized originally to enable the highest degree of applied operating ability in the gas and electric properties controlled by Henry L. Doherty & Company

The Doherty Operating Company is an organization of practical and experienced Operators, a corps of Specialists and Experts.

Will undertake the management of other properties only upon a contingent basis of profit.

Correspondence invited and treated confidentially.

## Doherty Operating Company

60 Wall Street, New York

# ELECTRICAL MERCHANDISE SELLING ELECTRICITEX

#### MAY, 1913

#### THE CHICAGO CONVENTION

Few men in the electrical industry realize that the National Electric Light Association is almost if not quite the greatest organization of its type in the world. Its membership is representative of practically every branch of the electrical industry, excepting only the telephone and railway branches. Its territory covers practically a continent, for it has members in both Canada and Mexico. Its work, much of which is of a highly technical nature, has been invaluable not alone to its membership, but to the world at large.

When this great Association meets in annual convention in Chicago two weeks hence, the most interesting and vital subject for study and discussion will be—salesmanship and sales management.

It is of more than historical interest to look back over the steps which have led to the central station man's present commercial status. When Henry L. Doherty as President of the Association, stated that the "new business" man held the key to electrical success, he was listened to as a rabid extremist. When J. Robert Crouse propounded his paper entitled "\$287,000," the most charitable called him a dreamer. When the first "Commercial Program" was arranged and presented before the Convention at Washington, only the leaders of the industry could see its significance. When the Commercial Section was formed in St. Louis by George Williams and Frank B. Rae, Jr., certain very powerful interests seemed actually to oppose it.

But though the central station commercial spirit has grown slowly and in face of discouragement, it has grown to master the association and the industry. It has created and developed millions of annual revenue. It has set its mark upon matters of finance and public policy. It has remade the monopolist and the technician into plain business men liveried as public servants. Best of all it has realized for us the dream of co-operation.

At the Chicago Convention we will see the Commercial Section of the National Electric Light Association grown to man's estate.

#### A PRECEDENT FOR POLITICIANS

Governor Sulzer of New York deserves the thanks of all public utility men for his recent action at a hearing of the Duham-el-Larrimer bill. This bill, which provided a uniform five-cent rate for telephone calls in and between all five boroughs of the City of New York, was granted a public hearing after being passed by both branches of the state legislature. The sponsors of the bill and some fifteen small trade associations were there to fight for it; the New York Telephone Company was represented by its President and counsel to fight against it. But there was no fight.

"If I could prevail upon your company to obey the decisions of the Public Service Commission without going into court over it," the Governor is quoted, "I think we could settle this without much trouble."

"We have never appealed from any decision of the Commission yet," replied U. N. Bethel, President of the Telephone Company, according to report, "and I pledge my word that we won't in this case if the decision is against us. I will go further. If the Commission should decide in our favor, I will meet a committee of the people in those districts that are complaining and will seek to reach an adjustment that will satisfy them."

With this understanding, the Governor induced the authors of the bill to withdraw it. Thus was another piece of foolish and needless legislation consigned to limbo.

Of course there was no occasion for the bill ever having been drawn. Certain outlying districts of New York had complained, and perhaps justly, of the telephone rate they were compelled to pay. The matter was brought before the Public Service Commission which delayed decision upon the complaints until the people became exasperated and induced their legislative representatives to act. The result was a bill so childish and unfair as to insure its being nullified by the courts. This bill was passed and needed only the Governor's signature to become operative.

In using a ripper bill as an opportunity to establish diplomatic relation between a public utility company and its complaining customers, Governor Sulzer has set a precedent for politicians. The New York executive has a reputation for being something of a demagogue. Reports of his speeches bristle with denunciations of corporations and tremble with heart-throbs for the people. The Duhamel-Larrimer bill gave him the opening for a grand stand play along lines that insure votes in the lower East Side where the Governor resides, but his common sense suggested the less popular but more practical course of mediation. Both he and the public utilities of the state are to be congratulated.



## STANDARDIZING THE CONTRACT FORM

Recent writings in Electrical Merchandise have dealt with the contract and application forms in current use among central stations. They have criticized the business-fighting and ponderously legal forms of many central stations, and have commended some central stations for admirably clear, simple, direct and courteous practice. Our plea has been for red-tapeless and man-to-man methods, and there is ample evidence in this office that our message has been heeded in some quarters.

However, one voice crying, no matter how insistently, in the wilderness, cannot accomplish what an efficient body of men, working intelligently together, can accomplish. Hence, the comprehensive work of the Rate Research Committee to standardize and simplify central station contract and application forms and riders, terms and conditions comes as fresh inspiration to the lesser work of *Electrical Merchandise*.

The Committee met at Association headquarters, New York City, on March 6, and exhaustively analyzed the systems in vogue among the larger companies with the view to recommending uniform or standard forms to cover them. A legal expert helped in this research work, and the results of the study will be published in the 1913 report of the committee. The Committee also sent out to all electric companies in cities of over 50,000, an inquiry as to methods used in applying the demand system, and these results will be tabulated with the recommendations of the committee.

What an opportunity to sweep, at the appointed hour, the useless and cumbersome machinery and red tape of a large section of the industry into the junk heap! The Research Committee could easily devise a simple and confidence-inspiring set of forms that, with slight local changes, could be used by central stations everywhere. In a narrow sense, it would be best for the individual company, whose red tape now may be driving business from its door, and rearing up the deadly barrier between its public and itself. In a broad sense, it would be best for the industry as a whole. Such standardization would tend to soften the public attitude and do much to turn aside that mountain of hostility, which right at this moment bulks so large and threatens the integrity of the whole system of privately owned public utilities.

The Committee can do it. It has the influence, the confidence of the industry. Already fourteen companies have signified their intention to publish their schedules in the near future in the form recommended by the Research Committee. It is one of the most fruitful opportunities that ever has come to this or any kindred body. If it is rightly handled, it surely will transform the none too cordial relations that now exist between central station and public into something infinitely more profitable for both.

#### An Indiana Window

A Lesson in Proper Lighting

WM. Beach Smith
District Manager, Indiana General Service Company,
Elwood, Indiana

A recent window display of the Indiana General Service Company effectively taught the people of Elwood, Indiana, three facts—the difference in illuminating value between properly reflected and naked electric light; the surpassing excellence of the modern Mazda lamp, and the superior light-reflecting quality of light colored walls. The two center compartments afforded a lesson in the proper use of the reflector. The

interest and aim in life is to sell, or promote the sale of electric vehicles of the commercial type." It makes a mighty useful salesman's pocket piece and the present showing of the sales barometer makes impressive data. The indicator points to 605 electric trucks in service, which, since there were probably not over 270 electric trucks in Chicago in 1911, represents an increase of something like 100 per cent in a year's time.

#### Clark Baker-M. C. Ripple

Clark Baker, formerly connected with the Brilliant Electric Works of the General



This central station window gave the people of Elwood, Indiana, many valuable points on proper light reflection.

walls were dark, hence a large percentage of the light was absorbed into them, but even the reproduced photograph shows wide difference between the two compartments. The shaded lamp clearly lighted up every detail in the compartment, while the limited diffusive capacity of the non-shaded lamp made but little headway against the darkness. The window card, used with this display, invited the passer-by simply to use his eyes, and the contrast would be apparent.

The compartments to the left contrasted 60-watt mazda with 16-candle power carbon lamp light. The compartments on the right illustrated the difference in illumination between the two types where the same amount of current was consumed per lamp per hour. The two sets of compartments together were a study in the superior reflecting qualities of light colored walls. Window cards drove home the lesson with significant percentage figures relative to light reflection and absorption.

Briefly, this way lies the value of a window display of this sort. For the layman, the whole question of proper illumination is rather too complicated to be readily grasped when merely told by facts and figures. But the Elwood window tells the most superficial observer the story by pictures. He actually sees with his own eyes the essential facts of proper illumination and light reflection, and what he sees conveys more meaning to him than a whole mass of engineering data possibly could convey.

#### A Barometer of Vehicle Sales

D. C. Arlington, the Chicago manager for the Philadelphia Storage Battery Company, has invented a simple electric sales barometer, for indicating the rapid increase in the use of electric trucks and the delivery wagons among Chicago merchants. It goes by the very complicated name of "Chicagoelectrotrucksalesometer."

The instrument, as described by the inventor, consists of "an outline of a barometer printed upon a piece of Bristol board, a red pencil, and one human being, preferably a male electric-truck manufacturer's agent or representative, whose chief

Electric Company, and M. C. Ripple of the Ripple Engineering Company have merged their interests in the sale of lamps and lamp accessories. They are doing business under the firm name of The Ripple Engineering Company, with offices in the Schofield Building, Cleveland, Ohio. This company has the Cleveland agency for the Sterling lamps.

# BUSINESS POSSIBLE

But First Secure Actual Costs and Make Sure That

> Each Customer's Charges are Fair Each One Bears His Proportion

Such Information Is Easily Obtained with

## THE PRINTOMETER

The Real "COST-FINDER."
Tells You WHEN and HOW MUCH.
Tells You the Diversity Factor and the Load
Factor.

ASK FOR PARTICULARS

#### Minerallac Electric Co.

Chicago, U. S. A.

PRINTOMETERS ARE MADE FOR US BY Chicago Electric Meter Company SPECIALISTS IN MAXIMUM DEMAND DEVICES

## Pride Keeps Many Signs Off Your Lines



LOTS of merchants in your town won't buy electric signs because they can't afford a big lamp letter sign—and they won't own a cheap looking sign.

Show THEM the FLEXLUME Sign and they will buy. Moderate in price. Cost of operation within the reach of all.

One lamp behind each letter. A reflector behind each lamp. Prismatic glass letters. The light shines through, clear and sparkling. A perfect night and day sign.

The quality and character of FLEXLUME signs satisfies the man who is too proud to buy the cheap and shoddy. The low cost sells him a big sign instead of a little one. Here's the key to sign business you have never been able to reach. We will help you get it.

Send for Our Proposition Today.

## THE FLEXLUME SIGN CO.,

BUFFALO, N. Y.

746 First National Bank Bldg., Chicago, Ill. St

St. Catharines, Ont. 1112 West Sixteenth Street
Los Angeles, Cal.

This Trade Mark The Guarantee of Excellence on Goods Electrical.





## Years of study by Electrical engineers to save Hours of labor in Woman's Work"

This illustration appears in the third advertisement of the big "Use Electricity" campaign in the Saturday Evening Post and Literary Digest May 3rd.

Five other illustrations in the same advertisement show household applications of Small Motors, Ozonators and Edison Mazda Lamps. The fact that houses can be wired easily and at small cost is emphasized in text and illustration.

Altogether this advertisement is a convincing argument for the use of complete electric service in the home.

## General Electric Company

GENERAL OFFICE, SCHENECTADY, N. Y.

Sales Offices in all Large Cities

4158



The Trade Mark of the Largest Electrical Manufacturer in The World.

### Large Earnings, Small Risk, In Electric and Gas Securities

The chart shown on this page, recently issued by Henry L. Doherty & Company, New York City, presents in vivid form the advantages of public utility securities both as regards net earnings and stability. True, this class of securities in spite of their high safety and high earnings, sells at lower prices than railroad securities, but that is merely because the railroad securities are an older and have always been a more popular form of investment.

In compiling his statistics, Mr. W. J. Gardiner of the Doherty Company has

motor type of 8-inch fans also has been added to the line. The Westinghouse line now includes 8-inch desk and bracket and telephone-booth fans, and 12-inch and 16-inch fans in both four-blade and six-blade styles of the stationary desk-and-bracket type and the oscillating type, also 12-inch and 16-inch exhaust fans and a large variety of ceiling, counter and floor column fans.

The popular six-blade 12-inch residence type has been extended this year to include the 16-inch fan. This six-blade, because of its slow speed, is extremely quiet in operation, and for this reason is particularly adapted to places where quiet is essential.

swivel and hinge joint, which gives a high range of vertical and horizontal adjustment to its fans.

These fans are also adjustable to either bracket or desk mounting. The oscillating fans are furnished in both the mechanically operated and air operated types.

Quality being equal, why not make the best profit from Fan sales?



## **Colonial Fans**

Cost you less money than any other make of the same durability and efficiency. You can be sure of delivering fans that will make friends. All sizes from 8 to 16 inches. All types, either A. C. or D. C.

Quick action is necessary. Write today for the 1913 Catalog.

#### The Colonial Fan & Motor Co.

WARREN, OHIO

A. C. and D. C. Motors, Rotary Converters, Generators



This chart shows the superiority of public utility securities, both in point of safety and net earnings.

taken into consideration all of the railroads of the United States, all of the large industrials listed on the New York Stock Exchange and most of the large gas and electric companies. One interesting fact brought out is that while the growth of railroads in this country has been very rapid, the growth of the gas and electric companies has been twice as rapid. Further, while the railroads and industrials show marked fluctuations in the amounts of their net earnings, those of the public utilities have increased steadily even through such periods of depression as followed the panic of 1907.

The deductions of Mr. Gardiner, the Doherty Company statistician, were drawn from a review of the equivalent of over five hundred and forty-five billions of dollars of capital. He found that over nine billion five hundred and seventy-eight millions of dollars or one and three-fourths per cent, had been in receivers' hands, and that the relative risk to capital in the different groups dealt with showed striking variances. For example, it appears that for every \$100 of railroad securities outstanding, \$1.84 averaged to be in receivers' hands. For the largest industrials, the figure appears as \$2.07, while for gas and electric securities it is only 37 cents, and this in spite of the high net earnings of the public utilities amounted to an average of \$8.45 per \$100. This is an indication that high earning rates do not necessarily point

to insecurity of capital.

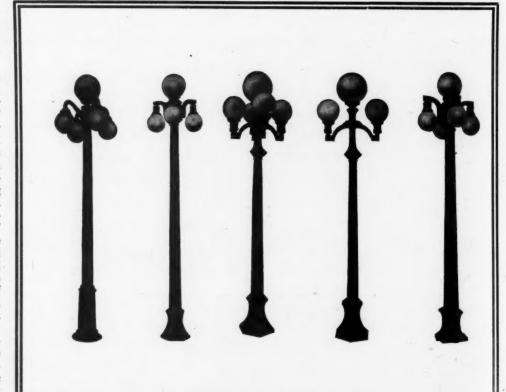
The facts and figures now being published by the Doherty Company deserve the widest publicity, for when these significant facts become better known, public utility securities will become the most popular form of investment.

#### Westinghouse Fans for 1913

The Westinghouse Electric & Manufacturing Company's 1913 line of drawn steel frame fans presents only a few minor changes over the successful 1912 line. The quiet-running, six-blade type of fan has been extended to include the sixteen-inch size and the oscillating type. An induction-

The 12-inch size has already proved popular in bed rooms, hospitals, professional offices, and similar places, while the 16-inch size is designed especially for theatres, libraries, halls, and other public places.

In addition to the well-known constructive features of its line, the Westinghouse Company makes a specialty of the patented



Independent Foundry Company
Portland, Oregon

#### AN INVITATION

Delegates attending the Chicago Convention of the National Electric Light Association are cordially invited to inspect the



## Largest Electric Washing Machine Plant in the World

Located at Clinton and Monroe Streets

AND-

## The Only Exclusive Electric Washing Machine Retail Store

Located at 24 East Jackson Boulevard

We feel that such a visit will open the eyes of central station men—especially those interested in Commercial or New Business Departments—to the wonderful opportunity which the washing machine offers in the development of residential business and the electrification of housework.

SEE OUR EXHIBIT SPACE 53

## HURLEY MACHINE COMPANY

Manufacturers of the THOR Electric Home Laundry Machine

General Office and Works, Cor. Clinton and Monroe Streets,

Chicago, Illinois

#### Breaking New Ground with the "Movies"

An Aggressive Educational and Selling Campaign that Won the Far West for the Utah Company



HE Utah Power & Light Company, a recently organized syndicate embracing some eighty towns and cities in Utah, Idaho and Colorado, based its first appliance campaign upon the lure of the "movies,"

and educationally and financially it was a big success. Although the territory was practically virgin, from the appliance man's standpoint, the campaign was short, extending only from February 20 to March 15. Having been served heretofore by scattered and none-too-well-organized lighting plants, no very definite effort had been made to bring electrical comforts and conveniences into the homes. No exhibits had been triedno demonstration-no solicitation. And, as a very natural consequence, few or no appliances had been sold.

After studying the situation pretty carefully, it was determined that the best way to break in would be via the moving picture, so arrangements were made with the General Electric and Westinghouse Companies for the use of the two films entitled, "The Electrical Education of Mr. and Mrs. Thrifty," and "Every Husband's Opportunity."

The campaign was planned much as a circus or theatrical tour. Newspaper advertising, window cards, hangers and posters were plastered over the territory by an "advance man." The appliance exhibit, which formed the practical part of the show, was arranged for easy and quick transportation. A crew, consisting of moving picture operator, demonstrators, solicitors, etc., was engaged.

The tour covered 14 towns in three of which two "performances" were given. The total attendance was approximately 10,500 or about 620 for each performance. As the advertising appropriation was less than \$22 per performance, this result is remarkable

Practically every adult person who attended the show was immediately solicited for business. A clever prize scheme was employed to secure names. Separable coupons, as illustrated herewith, were given out at the door. The signed coupon was deposited in a lottery box and the number stub retained as a means of identification. With these names in hand, the crew of eight solicitors had comparatively easy work.

It entitles you to one chance on any one o on display at the ELECTRICAL APP		
(TEAR OFF HERE)		*****
DEPOSIT THIS COUPON IN BOX AT THE SHOW	No.	5432
Name		
Town		
If the number on this coupon corresponds with the on display at the ELECTRICAL APPLIANCE SHOW prizes on exhibition at the show, without expense or of the coupon of the co	rou will be aw bligation on ;	arded one of the your part

This clever idea brought a lot of valuable names to the Utah central station. Many appliances were sold to this list.

It is to be noted, however, that the solicitor's follow-up came immediately after each show, while enthusiasm and interest were Without doubt, the entire campaign would have proved a financial failure had the salesmen neglected to "strike while the iron was hot."

The follow-up, however, was enthusiastic and immediate. Eight men, working four weeks, sold 560 appliances of all sortsan average of almost six appliances per man per day. It must be remembered that in addition to this selling work, the men were engaged in "pulling off" 17 shows and traveled through 14 towns.

The appliances sold would make a pretty complete jobber's stock-irons, cigar lighters, ranges, washing machines, a tailor's goose, a soldering iron, bell ringing transformers, radiators—everything one could think of in the way of an electrical household utility-with a generous scattering of commercial appliances. Of the 560 items, 37 per cent were paid for in cash and 63 per cent sold on an extended payment plan. Three ranges, eight washing machines and

practical every-day apparatus that will lighten housework, rather than percolaters, chafing dishes, etc., which may more properly be designated as luxuries.

As an introductory campaign, the Utah Power and Light Company's experiment with the "movies" was a large success, but the success lay in briskly following the educational work of the picture machine with aggressive salesmanship.

#### Central Station Figures for U. S.

The combined electric output of the 7,500 central stations in the United States for the year ended December 31, 1912, was 12,000,-000 hp. according to Iron Age. Of course, this in nowise represents the total electric power generated in the country. Iron Age goes on to say that it would take nearly 5,000,000 of the largest standard locomotives which pull the fast passenger trains and are rated at approximately 5,000 hp. to equal the energy produced by the American electric power plants. The engines of the largest



Posters like this gave a theatrical touch to the first appliance compaign of the Utah Power and Light Company.

two vibrators were sold for cash,—a significant fact. Of the 220 flat irons disposed of, 100 were cash sales and 120 sold on extended payment basis. Another significant fact is this: 55 of the items [exclusive of irons] were labor-saving utilities such as washers, ranges, utility motors, sewing machine motors, etc., showing that the women of the west are in the market for

transatlantic liners, which are nearly 1,000 ft. long, are rated at 70,000 hp. To equal the electric power output of the United States would require 342,857 of these vessels, with a combined length that would reach more than twice around the world. It is estimated that the total business in electrical machinery in the United States in 1912 amounted to approximately \$300,000,000.

## THE METER WITH A RECORD

TYPE H

"BUILT LIKE A WATCH"



This Meter "Blazed the Trail"

FOR ACCURATE LOW-PRICED INDUCTION METERS

Secure Our Complete Technical Bulletins. They Are of Interest to You

Sangamo Electric Company, SPRINGFIELD, ILLINOIS

CHICAGO, 617-631 West Jackson Blvd.

NEW YORK, 50 Church Street

SELLING AGENTS: St. Louis, Fort Worth Electric Appliance Co., Chicago, San Francisco, Dallas, New Orleans. Wesco Supply Co., and Birmingham. Wetmere-Savage Co., Boston. Ludwig Hemmel & Co., Pittsburg Rumsey Electric Co., Philadelphia, Pa. Alfred Cellyer & Co., Montreal.

Federal Sign System (Electric) Chicago-New York. 913

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# The Need of Intelligent Advertising by Central Stations

The Central Station Industry was one of the last great businesses of this country to acknowledge and embrace the use of that wonderful economic force—ADVERTISING.

Consequently, there are today but very few of the individual companies throughout the country that have really developed their advertising departments to any degree of efficiency. This is not a knock, it is a simple statement of fact.

It is true, conditions have improved steadily during the past few years. The service contributed by the large Electrical Manufacturers has been invaluable to the small town operator. The publications and information prepared by the N. E. L. A. have also been very useful. But these things are not enough in themselves.

The stock campaign never was and never will be a real success. To get results you must apply local "color" and ideas to your advertising. It is impossible to prepare a piece of copy that will conform to the rules and practice of every Central Station and still be of advertising value.

The things that make an advertising appropriation pay big dividends are—Intelligent direction of a comprehensive constructive campaign carried on to apply to the needs of each individual Central Station; enlisting the aid of the Manufacturers and N. E. L. A. Services through their publications and cuts, as well as working directly in conjunction with your sales force and aiding them at every turn.

The C. W. Lee Company is the pioneer in Central Station Advertising and Publicity and has passed through all of the various stages of development in the field and knows how to get results.

We will gladly tell how we can help you.

Look up our representatives at the Convention.

The C. W. Lee Company, 90 West Street, New York City

1,000 equal United ressels, reach It is ectrical

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Co.,

#### Pushing the Electric Vehicle

The latest news from New York and Boston shows that no stone is being left unturned to push the sale of electric vehicles this spring. In New York, the manufacturer and the central stations are working together to this end. W. C. Anderson, president of the Anderson Electric Car Company, recently addressed a meeting of the managers of the New York Edison Company to such good effect that a special appropriation of \$30,000 was voted to establish an exclusive electric-car garage in New York City. This appropriation will be expended at the rate of \$10,000 per year toward the rental and promotion of the garage. For the sake of strict impartiality, the expenditure will be under the jurisdiction of the Electric Vehicle Association of America. In accordance with Mr. Anderson's further suggestion that a strong central station educational campaign be launched, the Edison Company will advertise through the newspapers and by personally addressed letters.

In Boston, electric vehicle activity takes the form of a convention which has been booked for late spring. The purpose of this convention will be to stimulate a larger degree of cooperation among the central stations of New England, the sales managers and local representatives of electric vehicle manufacturers, the advertising interests and the large users of pleasure cars and electric trucks. Another important aim of the convention will be to demonstrate to manufacturers the electric vehicle opportunity in New England, and what the two-year campaign in eastern Massachusetts already has accomplished.

#### New York Company Section Elects Officers

At the monthly meeting of the New York's Companies' Section of the National Electric Light Association, held April 21, the following officials were elected for the following year: Chairman, H. M. Edwards, The New York Edison Company; Vice-chairman, H. L. Snyder, the New York & Queens Electric Light & Power Company; Treasurer, W. L. Bruce, Westchester Lighting Company; Executive Secretary, F. C. Henderschott, The New York Edison Company; Recording Secretary, J. A. Burke, United Electric Light & Power Company.

#### Peerless Bipolar Motors

Bulletin No. 36 of the Peerless Electric Company of Warren, Ohio, relative to its line of fractional horsepower bipolar generators and motors, is put up in such clear, simple and handy form that its contents are easily and quickly grasped The line comprises motors for small pumps, air compressors, job presses, bookbinding machinery, automatic pianos, washing machines, ventilating outfits, etc. The strong, compact construction and efficiency of the bipolar designs are emphasized, and the Company offers to conduct practical tests for the benefit of interested manufacturers.

#### C. N. Wiley

C. N. Wiley has been appointed manager of the newly instituted central station service at Ragland, Ala.

#### Electrical Wheel Chair at Palm Beach

The board walk at Palm Beach, Florida, recently witnessed a new application of

electricity, the board walk wheel chair. A young couple wintering at the beach were the first to give a practical demonstration of this motor-driven wheel chair, and it was said to run reliably and easily.

#### Educating the British Public

The General Electric Company, Ltd., of London, one of the foremost dealers in electrical supplies in the world, proposes to spend \$150,000 in a general electrical publicity and educational campaign in the interest of the electrical industry of Great Britain.

#### H. L. Heffner

H. L. Heffner has been appointed manager and superintendent of the Huntington Beach [Cal.] Electric Light & Power Company to succeed A. W. Lindgren.

#### I. W. Day

I. W. Day has succeeded G. E. Matthies as manager of the Seymour [Conn.] Electric Light Company.



# American Beauty

The Best BylroningBoard Test

GUARANTEED FOR ALL TIME



AMERICAN

The Practical Fixture for Contractors and Central Stations



#### Sechrist Patent Electroliers

Easy to sell-attractive. Easy to buy-right price. Easy to get-from your jobber.

Sold East of the Mississippi River by

ELECTRIC APPLIANCE COMPANY Chicago, Dallas, New Orleans, San Francisco PETTINGELL-ANDREWS COMPANY

H. C. ROBERTS ELECTRIC SUPPLY CO. Philadelphia, Syracuse, N. Y. SOUTHERN ELECTRIC COMPANY Baltimore, Md.

STANLEY AND PATTERSON New York

UNION ELECTRIC COMPANY
Pittsburgh

Sold West of Mississippi River by

The Albert Sechrist Manufacturing Company

NATIONAL QUALITY

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## WHY NOT GET the MERCHANTS

of your city interested in ornamental street lighting?

## Start Something

either with the Merchants' Association, Board of Trade or Boosters' Club or as a straight betterlighting - better - business campaign.

We can send you data that will start it, push it, and get Write for new catalogue.



New Haven, Conn. An installation drawing Street Lighting Com-mittees from all over the

Lockport, N. Y. Bracket on existing trolley poles without trolley poles without removal of overhead

NAMENTAL JIGHTING POLE POLES FOR ALL TYPES OF LIGHTING 118 Liberty Street, New York City

MORE Patents Granted-Others Pendin

Are Sold Than All The Others Put Together

May, 1913

"CURRENT EVENTS"

No. 11

A sign manufacturer wrote us for a price on a flasher for a large Sign. Their specifications were exacting—complicated. They wanted an effect NEVER BEFORE PRODUCED. One Flasher Manufacturer quoted 30% under us as he was unable to furnish the proper effect or could not comprehend the specifications and so suggested a much simpler machine which would not give the desired effect. Another wrote for "More information."

We Submitted Specifications—Quoted—Received The Order.

The Sign Manufacturer knew we could give him what he wanted-A perfect effect.

N. B. Every time you read of an important Sign installation you will find BETTS FLASHERS operate it.

BUY RESULTS - NOT TROUBLE



COLOR CAPS: Are Strongly Protected by Patent BEWARE OF IMITATIONS

Ask us why the leading sign manufacturers use them



Largest Manufacturers of Flashers, Electric Clocks and Sign Accessories in the World. 254 W. 55TH STREET, NEW YORK, U. S. A.



Pat. 1912

#### **Electrical Development Plans Formulated**

The Committee on plans of the Society for Electrical Development held an all-day session on Tuesday, May 6, at the office of the Society in New York City.

The Committee consists of Messrs. James M. Wakeman, General Manager; Philip S. Dodd, Secretary-Treasurer; Frank H. Gale, J. C. McQuiston, W. H. Johnson, J. Robert Crouse, Frank Watts, Hugh Wilson, E. S. Young, J. B. Olson, M. Turner, James I. Ayer, George Williams and Frank B. Rae, Jr.

Definite plans were laid with regard to publicity and advertising. It was deter-mined that the Society should employ an able publicity man who would have charge of the preparation and dissemination of educational items for both trade press and daily newspapers. The Publicity Manager, it was recommended, should also actively participate in the preparation of advertising copy for any campaigns which might be undertaken.

The question of general advertising in popular magazines developed a very considerable amount of discussion and the committee finally recommended the under-taking of such a plan in which the copy should be based upon general considerations, such as the safety, economy and conven-ience of electricity in its various applications. The Committee also recommended to the

Executive Committee its choice of advertising agencies. The Committee's action not being binding until approved by the Executive Committee, the names of the agencies will not be made public at the present time. It is understood that the recommendation includes the selection of an advertising agency for handling popular magazine advertising, a consulting publicity man and one other expert in electrical advertising.

Definite plans were also made covering the work of a travelling representative who should endeavor to organize local electrical interests for cooperative effort along the lines at present followed by the Jovian tunch clubs and similar organizations.

A very clever suggestion was made by Mr. George Williams, looking toward the use of electric signs for central stations. The idea, as outlined, is that the Society should procure a considerable number of attractive signs advertising electric light, heat and power, these signs to be loaned to central stations for local display for several weeks or months and then shipped to the next town. According to this plan, it will be possible for lighting companies to have from six to a dozen electrical displays each year and it was thought that form of spectacular advertising would have a considerable effect wherever the displays are made.

The report of the Plans Committee will be acted upon during the month by the Executive Committee of the Society and will be formulated into a booklet for general distribution throughout the industry. booklet, it was believed, would make plain to all interested the aims and plans of the Society and would serve to enlist a considerable amount of support.

Fred E. Schornstein

Fred E. Schornstein, formerly commercial manager of the Amarillo (Texas) City Light & Water Company, has removed with his family to Salina, Kansas. Mr. Schornstein is now connected with the Salina Gas & Electric Company, which is owned and operated by Henry L. Doherty & Company. 913

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#### Efficiency and the Electrical Society

The following editorial from Scientific American is worth reproducing in full, not only because it represents expert outside opinion of the possibilities of The Society for Electrical Development, but because it reveals the interesting thought that the new organization should be capable of all the working efficiency of a gigantic trust, yet be free from any suspicion of trying to control the market:

"Whatever may have been the sins of the gigantic trust, even its enemies were willing to admit that it was usually efficient, largely because its administration was centralized. But a single department purchased the cargoes and trainloads of raw material which it converted into manufactured products; a single advertising staff prepared its selling announcements and bought space in maga-zines; a single board of directors guided its commercial destinies; in a word, harmony and co-operation were substituted for discord and strife.

"Now that the Government has decided through its courts that many combinations of manufacturing enterprises, however economical and efficient they may be, are detrimental to the best interests of the country, how is it possible to apply the lessons taught by the trust without incurring the displeasure of the Attorney General of the United States? An answer is to be found in the Society for Electrical Development, formed for the sole purpose of introducing electricity more widely and of eliminating the useless friction which has marked the development of the central station industry in this country. Although electrical goods and electrical energy to the value of two billion dollars a year are sold in this country, the market for electricity has only been skirted and never really penetrated.

"All this the Society for Electrical Development intends to change. Central stations, architects, 'contractors, electrical manufacturers, the host of industries dealing in electricity or dependent upon electrical energy, are to unite in popularizing elec-trical service. There are about ten million buildings in this country in which electricity could be used to profit. Yet only one in five is wired for service. If the public can be taught that electricity is not a luxury, if the central stations can be brought to the view that the small consumer's business in the aggregate is as lucrative and even more so than that of the occasional large consumer, if the thousand and one interests that have been warring in the past can join forces in the effort to expand the electrical business of this country, we may indeed look forward to that "electrical age" which has existed hitherto only in the pages of the sensational newspaper.

"Fortunately the men responsible for the creation of the Society for Electrical Development have long been identified with the electrical plants in this country. Mr. Henry L. Doherty is the president. Associated with him are Mr. J. M. Wakeman and Mr. Philip S. Dodd, both thoroughly familiar with the business needs of central stations and manufacturers of electrical goods. Thus competently guided, the enterprise should infuse a new spirit of co-operation into the business of selling elec-tricity and electrical goods. If it succeeds, as it gives every promise of doing, the ex-periment will probably be repeated in other industries; for it will mean the retention of the trust's efficiency in selling, without any attempt to control the market."



**OUTDOOR ADVERTISING EVERYWHERE** 

The O.J.Gude Co., N.Y.

Originators of Spectacular Electric Sign Advertising, and of the "Great White Way," New York City

Owners of Electric Moving Sign U.S. Patent No. 648,677

## RECO FLASHERS

Have adjustable contacts, permitting minor or complete changes



RUGGED-SIMPLE-TROUBLE PROOF



HOODS

Best quality

Natural glass

FOR COLOR EFFECTS IN ELECTRIC DISPLAYS

Reynolds Electric Flasher Mfg. Co.

Largest Manufacturers of Flashers in the World

Also Manufacturers of Billboard Reflectors, Time Switches, Transformers, Window Displays, etc.

617-631 W. Jackson Blvd., Chicago

1123 Broadway, New York

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#### Two New Ideas for Building Up the Heating Load

Electric Heat Applied to Brick Press Plungers—Also, a New Way to Keep Automobile Radiators from Freezing.

By E. F. Stone Superintendent Lighting and Power, Arkansas Valley Railway Light and Power Co., Pueblo, Colo.



HAVE recently hit upon a new application of electric heat that has worked out so satisfactorily that I have taken steps to secure a patent. I believe that the device will find a ready market in the brick

industry. Many of the brickyards throughout the country have been buying power from central stations, to drive their machinery, finding in almost every instance that it is cheaper than running their own boilers and engines.

However, the necessity for heat requiring the operation of separate small boilers, with the constant attention it entails, has always been the great drawback to the use of central station power in the brickyard. During winter, there is constant danger of freezing in the presses and live steam has been continually on demand for heating the plungers of brick presses. Moreover, these plungers require heat even in the hottest summer weather so that the clay will not stick to the plungers and make the brick scaly and irregular. Therefore heat was in all-year-around demand.

To overcome this necessity for an auxiliary boiler, we have succeeded in making changes in the plungers at one of the local brick plants whereby they may be heated by electricity. The Summit Brick Company has been operating with electric heat for about one year now and not the slightest complaint has been received from the operation of this plant.

This arrangement consists of taking an ordinary General Electric flatiron heating element, imbedding it in the plungers, and protecting it with mica and asbestos.

This plunger is made of three parts, the body, cap and face plate. The main body of the top plungers is of solid iron 3% inches wide, 7 inches deep, 8½ inches long, with recesses in each end 4½ inches long, 2½ inches wide and 1¼ inches deep, in order that bolts may be inserted to bolt the plunger to the machine at one end and also bolt the cap plate to the plunger at the other end. One-half inch bolts are used for this purpose, and the holes that they pass through are one-eighth of an inch larger to allow for adjustment.

In the top of the plunger in a recess oneeighth of an inch deep we have placed the heating elements. This depth permits several sheets of mica to be placed between the element and the iron, thereby affording ample insulation and scarcely retarding the flow of heat. The terminals of the elements are placed in a recess two inches in diameter and having a depth of one inch. The recess begins to taper at a depth of one-half an inch and tapers in another one-half inch of depth to a hole 5/8 inches in diameter. Through this latter hole the asbestos-covered leads are brought, these leads being bolted to the terminals by means of small brass bolts and copper washers. The bolts give much better satisfaction than brazing, as hole is packed with asbestos, which keeps the terminals separated and permits of no vibration. The hole through which the leads come intersects another hole of the same size at right angles and in this way the wires are brought from the top at the right hand side

of the plungers to the middle part of the lower end. The wires are passed through a one-half inch bushing on entering the plunger, thus preventing any scraping of the insulation.

Before the plate is put on, a piece of sheet iron  $\frac{1}{12}$  of an inch thick is placed over the element and held in place by five countersunk machine screws, one at each corner and one in the center. This holds the element rigidly in place and prevents any dirt coming in contact with the element. It also permits the removal of plates for grinding, without disturbing the elements.

A face plate made of hard steel is riveted to the cap plate, and above the plungers there is a flat surface suitable for strapping



This brick press is electrically heated. No. 1 shows part of the old steam line supplying steam to the plungers before they were electrified. No. 2, the flexible joints carrying the wires from the stationary to the movable parts of the machine. No. 3, the flexible connection of the wire which carries the wires to the lower elements.

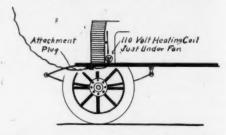
on a piece of one-half inch conduit. At the left of each plunger is a condulet where the feeder wires are tapped to the main. The wires from the condulet to the plungers are covered with one-fourth inch loom as there is no relative motion between the condulets and plunger.

Everything is thereby made dust-proof and the conduit is also brought down the side of the machine terminating in two snap switches, one on the upper and the other on the lower set of plungers. The main wires are brought from the switches to the conduit above the plungers through a heavy hose made long enough to allow for the up and down movement of the plungers. By this arrangement any plunger may be disconnected from the mains without disturbing the remaining ones.

The Arkansas Valley Railway Light and Power Company also recently changed over The Standard Fire Brick Company from steam to electric drive. This is one of the largest brick plants in the west. And we doubt if it would have been possible to secure this business for the central station, had it been necessary for them to continue

to maintain a separate steam plant for the heating of their presses. The system has had a year's test in the Summit plant and has been subjected to close scrutiny by the other brick manufacturers.

We have another new idea for selling electricity which has created quite a demand among local automobile owners. We have taken a barrel type electric air



A working plan of an electric air heater for heating automobile radiators. The heater is attached just inside the hood on the radiator and arranged so that it can be easily bolted to the radiator, or removed at short notice.

heater, nine inches long, with a consumption of approximately 300 watts, and adapted it to the heating of automobile radiators. When it is connected to an ordinary lamp socket, this device will keep the water in the radiator from freezing and the manifold sufficiently warm to make the starting of the car very easy. This is a very necessary precaution in Arkansas because of our extremely cold winters.

We first equipped the local fire department with the heaters and they were found to be of great assistance for starcing the engines quickly. After we had installed the heaters on the fire trucks and other machines owned by the city, the officials were so well pleased that they recommended the proposition very strongly to automobile owners. Consequently, we have had many inquiries and installed several heaters for this purpose.

This electric heater is attached just inside the hood on the radiator and arranged so that it can be easily bolted to the radiator, or taken off at short notice. 'Cars are so equipped that the electric heater may be permanently installed during the winter months. Thus it can be used very conveniently by automobile tourists in any garage that is electrically lighted. Regardless of whether there should be any heat in the building whatever, a simple connection to a lamp socket would place the owner in a position to properly heat his car.

The connections leading to the heaters on the city fire trucks are so arranged that when a call comes in, a weight is released that disconnects the plug. I believe that when this electric heating of automobile is generally advertised and used, a demand will develop for curb post connections in front of office buildings, department stores and similar structures. This post would resemble a hitching post, and equipped with a stage or weatherproof socket would be available for either horse or automobile hitching. An automobile, so hitched, would receive the necessary electrical heating connection, while standing. The connection from the building would be made under the sidewalk to the post.

This electric heater eliminates three of the several automobile troubles which heretofore have been expensive propositions—piping the garage for steam, providing antifreezing solution for the radiators, or the expense of repairing cracked cylinders or frozen radiators. We expect to obtain quite a little off-peak business during the winter months from the heating—of automobile engine compartments in the way that I have indicated.

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#### Second-Year Campaign of Electric Vehicle Association

The 1913-14, or second year cooperative publicity campaign of the Electric Vehicle Association of America will begin about June 15. It is the publicity committee's desire to raise \$75,000 for the work. Nearly \$15,000 already has been raised through preliminary personal solicitation, and now the publicity committee is sending out a series of letters to the various interests upon which the Association is dependent for support—to contributors to the first year's campaign, to the manufacturers who did not contribute to the first year's campaign, to the central stations, to members of the Association, and to the manufacturers of electric vehicle accessories.

Each letter in the series makes its own strong and particular appeal for support. For example, contributors to the first year's campaign fund are told that inquiries and leads from every state in the Union and from more than twenty-five foreign countries have been received as a result of the publicity work of the Association. It is also pointed out that members generally have expressed satisfaction with the work, and, in a large number of cases, have already voluntarily indicated their desire to have the campaign continue.

Copy plans for the second year are also shown. Whereas the first-year copy was largely educational, second-year matter will be made more specific and a direct appeal to the prospect, giving facts, figures and data with respect to the electric vehicle, both commercial and passenger. Two attractive booklets also will be published by the committee—"The Story of the Electric Commercial Vehicle," and "The Story of the Electric Pleasure Vehicle." Each advertisement that the Association publishes will carry a coupon which will induce interested parties to write for the booklets. These booklets will also contain the names and addresses of all manufacturers of the Association who subscribe to the campaign fund, and will be immediately mailed to inquiries and vice versa. Besides the subscription blank, a copy of the committee's report, as it was presented at the last annual convention of the Association, held in Boston October 7-8, 1912, is enclosed with every letter. This report sets forth in detail the campaign so far as it had progressed up to that time.

Non-contributors are told much the same story, and are strongly urged to get in line. Every central station is told that it is very much wanted in the work, and requested to contribute its minimum of \$25 to the second-year campaign fund. It is urged that the growth of the electric vehicle industry has brought increased revenue to the central station, and that the publicity of the Association already has directly contributed to that growth; also that every central station has benefited by past advertising, and that, sooner or later, the electric vehicle will be a factor as a current-consuming device in the central station industry, providing that the cooperative work of all interested is continued.

Members are urged to bring second-year intentions and needs of the Association before the interests with whom they may be connected and to urge their own companies either to begin or renew subscription. The manufacturers of accessories are told that the work of the Association has been just as conducive of accessory sales as of electric vehicle sales, and that logically they therefore should be subscribers to the second-

year campaign.

The letters, on the whole, only emphasize what every interested party knows to be true—that the work of the Association in general, and its advertising work in particular, has unquestionably been a powerful factor in the rapid and general increase of the electric vehicle business. Automobile manufacturers and public utilities today recognize too well the value of cooperative advertising work to allow the Association to perish at the beginning of its second year, simply for want of reasonable support from the various elements. The sum of \$75,000 is a reasonable enough amount to expend in such a work, and the specific advertising that the Association intends to promote for its second-year campaign ought to pay every subscriber many times over for the moderate sum he is asked to contribute. These facts should

be borne in mind; not only will all the general magazine and trade paper advertising of the Association be made more specific in character, and with the momentum of the first-year campaign back of it, be of great value to itself in promoting the electric vehicle, but all these advertisements, as heretofore, will be available to manufacturers and central stations for local use. Furthermore, the names of all manufacturers will be furnished to inquirers, while, in turn, the names of the inquirers will be furnished to the manufacturers.

Thus the latter will be provided with a large and choice list of prospects they probably could not otherwise obtain. The movement has great practical value and almost unlimited possibilities. It should be supported.



To the Members of the National Electric Light Association

attending the

1913 Convention at Chicago

Greetings

To all, whether from North or South,
East or West, our Congratulations
and the wish that this year's gathering
be as successful as the Seattle Convention of last year

At Your Service

The New York Edison Company

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## Tie Your Window To This Big Idea

PUT your window alongside of your best salesman and measure the one against the other. Which promotes the most sales?

An effective window advertises your place of business—it brings customers through your door.

One dealer says, "I am certain that my window was responsible for the 150% increase in National Quality Mazda lamp sales during the month of August, last year.

Fully four million people will see our big ad in the Saturday Evening Post of April 24th. Many of these live in your city—within easy reach of your store.

From time to time other ads will appear. Begin reaping the benefit of this powerful publicity now by connecting up your window displays with it.

If you desire additional advertising helps in the nature of pamphlets, mailing cards, cuts and copy for newspaper advertising, etc. (free of charge), send in your request to any of the following works of the



OF GENERAL ELECTRIC CO

Cleveland

American Electric Lamp Works,
Central Falls, R. I.
Banner Electric Works,
Youngstown, Ohio
Brilliant Electric Works,
Cleveland, Ohio
Bryan-Marsh Electric Works,
Central Falls, R. I.
Chicago, Ill.
The Buckeye Electric Works,
Cleveland, Ohio
Colonial Electric Works
Warren, Ohio
The Columbia Inc. Lamp Works,
St. Louis, Mo.

Economical Electric Lamp Works New York City
Elux Miniature Lamp Works, New York City
Federal Miniature Lamp Works, Chicago, Ill.
The Fostoria Inc. Lamp Works, Fostoria, Ohio
General Inc. Lamp Works, Cleveland, Ohio

Monarch Inc., Lamp Works, Chicago, Ill Munder Electric Works,
Central Falls, R. I.
Packard Lamp Works,
Warren, Ohio
The Peerless Lamp Works,
Warren, Ohio
Shelby Lamp Works,
Shelby, Ohio
Standard Electric Works,
Warren, Ohio.
The Sterling Electric Lamp Works
Warren, Ohio
Sunbeam Ine. Lamp Works,
Chicago, Ill., New York City

#### Assembling Ideas

Effective System of the Central Hudson Company

By L. H. SCHERCK Sales Manager The Central Hudson Gas & Electric Company

The electrical trade journals are clearing houses for valuable constructive ideas that cover every phase of the industry, and the central station that keeps close tabs on them is bound to profit much from the ideas of the keen, practical, observant, progressive and constructive minds that contribute to them. Recognizing this, the Central Hudson Gas & Electric Company subscribes to various trades papers and magazines, and maintains an admirable system for reading and review of the same. A duplicate list of publications is taken in both Poughkeepsie and Newburgh, N. Y. These papers are scheduled, and beside the title of each are placed instructions as to which official is required to review it, and what additional persons are required to read it. For instance, Electrical Merchandise comes to me for review, while the schedule says that the district manager, contract agent and the power engineer are required to read it.

When the magazine comes in, the file clerk attaches a white sheet, "a", bearing the names of the various officials. He marks a red circle around the title of the official who will review the publication, and inserts alongside the names of the prospective

	Contract Agent		
		**********	************
	Chief Draftsman		
	Chief Draitsman		
*****	*******	*********	************
	Engineer		
1	General Foreman		
*****		*********	
	Superintendent		
	Superintendent		
******	*****************		****************
	Operating Manager		
			1
	Office Manager		
*****			*************
	Stenographer		
	Stenographer		
	Board of Managers		
		*********	*************
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	Office Manager		
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Sheet "a." This slip is attached to every trade paper and the title of the reviewer red-circled in the above list.

readers. The magazine then comes to me for a thorough reading. In my review, I designate what articles I wish to call to the attention of any of the regular readers or any other employes of the company who I think would be benefitted. The process here is to mark the page number alongside

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of the title or name of the employe on the white sheet, "a", which is pasted to the cover of the publication. I also stamp anything I wish to have clipped from the magazine with a rubber stamp marked "clip." The stamp mark appears twice in the publication—above the page on which the article scarts, and on the cover of the magazine. In the space within the "clip" stamp, I also note the number of the classification under which this clipping should be entered. For the sake of clearness, it should be noted here that a subject list of clippings from technical publications forms a part of the system. The subjects cover both gas and electrical plants and other engineering subjects; domestic appliances, house wiring and other commercial electrical topics; accidents, accounting, advertising and publicity, complaints, contracts, new business ideas, and many other general classifications. All these are numbered for explicit reference.

After I have read the magazine, it goes into my "out" basket and the boy takes it to the next reader, who is permitted to keep the magazine twenty-four hours. The latter initials alongside his name, and after he has finished with the publication, he drops it into his "out" basket. If any reader fails to insert his initials, the magazine goes back to him. Then if the boy does not get the magazine back at once, he applies for it. After the magazine has completed the round of prescribed readers, it is returned to the file clerk. However, if any reader wishes to have a second reading, he marks the publication accordingly, and after it has gone the rounds, it goes back to this individual for a second reading.

After two weeks the magazine is clipped. The clippings are filed according to the regular classification described above, and then are pasted on loose manila sheets, which are bound into board covers and filed in the company's library for reference the same as all technical books.

The men and companies that make the biggest successes in life are invariably eager and ready to profit by interchange of ideas. Thus, all enterprising central station men should be quick to see the tremendous opportunity The Central Hudson Gas & Electric Company already has embraced by means of its clipping system. And it is not alone the mass of material thus gathered. The system is demonstrating a new way of training men. The newspaper man, with his acutely developed "nose for news," is recognized to have a valuable equipment for the life work of today that will serve him in good stead in many another vocation besides journalism. And, likewise, our company is training men to "look alive" for practical "hunches" that will help the company in many ways of production, economy, business practice, advertising and selling cam-paigning. The trained brains of every department of the central station are directed this work until they grow sharp, keen and receptive, not only in the work of gathering material, but in the everyday work of shop, office, advertising department or salesroom. When brains nod, countless "dollar ideas" go to waste in the central station. But when brains are kept in tune by a stimulus applied apart from the regular routine of shop or office—by just some such side activity as described above, the real live dollars-and-cents "hunches" that are always ready and waiting are less likely to be kicked about the ground for the want of a seeing hand to reach down and grasp them.

## VELURIA SEMI-INDIRECT BOWLS

Eleven Designs-All Sizes



Semi-indirect lighting is becoming extremely popular for the illumination of almost every class of room—residences, offices of all kinds, public dining rooms, stores in which the ceilings are unobstructed, and draughting departments where close work is done. The varied requirements of these installations all are met by one or another of our Veluria Semi-Indirect Bowls. There are eleven designs which are furnished in all sizes.

Bulletin No. 206-gives complete data. Write for it.

## HOLOPHANE WORKS

OF GENERAL ELECTRIC COMPANY

CLEVELAND, OHIO

New York

Boston

Philadelphia

Chicago

San Francisco

## The Farmer's Opinion of Electricity for the Farm

We are reproducing below a paper by Don Cameron Shafer on "Electricity on the Farm," which recently appeared in Country Gentleman. It merits the attention of central stations that are located in farming districts, because Mr. Shafer has gathered his information from an important source—from the farmers and the "hired men" who are in the best position to know at what points the application of electrical power would do them the most good. Furthermore, it suggests practical methods of study and approach whereby central station representatives, seeking rural business, could first post themselves on just what was needed on a given farm, and then go straight to the farmer prospect with a better-thanaverage plan of assistance and cooperation. Here is the paper:

"Much that has been written about electricity on the farm has been of a general nature, without citing specific instances and installations to show the actual service, economy and convenience of electric power when applied to any particular item of work.

"I asked a certain young farmer what particular chore he thought the hardest. "'All of it,' said he with a grin.

"'But if you could have power for just one chore which one would you select?' I asked.
"'I'd hook her on the pump,' he answered knowingly.

"Farm work requires oceans of water and where a running stream is not available for the house and barns the pumping of water is a daily chore of giant magnitude. The windmill has helped somewhat to ease this burden, but there remains hundreds of thousands of farms where the water has to be pumped. One of the successful adaptations of electric power is to drive pumps for the water supply. Small motors, from ½ to ½ horse-power, are used to fill pressure or gravity tanks, and as the pump is not in use all the time the same motor is generally utilized to drive the cream-separator, the tool grinder, the washing machine and wringer and to do other light chores.

and wringer and to do other light chores.

"A small motor of ½-horse-power size costs in the neighborhood of \$50 and will consume about eight cents' worth of current for an hour of hard work where current can be purchased from an electric distribution company. Often the cost will be less where the rate per kilowatt of current is low. A ¼-horse-power motor will cost about \$40 and will require but a few cents' worth of electricity for an hour's work.

"No farmer can employ help to work for ten hours pumping water and turning the washing machine and separator at their full capacity for only eighty cents. Nor can he afford to do the work himself at that figure.

figure.

"The electric motor is adaptable to any kind of pump, whether plunger or centrifugal. The motor is not susceptible to cold and can be located anywhere in the fields with just a small house to keep out the rain and snow. It can also be controlled from the house or made to work wholly automatically by using a tank and float which will start the motor when the water gets low or stop it when the tank is full.

full.
"I next asked another young countryman where he would 'hook her.'

where he would 'hook her.'
"'On the separator,' he answered without stopping to think. 'We are milking fifty cows or more here most of the time.'

cows or more here most of the time.'
"The C. M. Bliss farm, Knox County,
Illinois, comprising 160 acres near an

# Jackard,

## TRANSFORMERS

Have been leaders since pioneer days

and

## PACKARD INSULATION

Including Insulating Cloth, Tapes and Varnishes Explains Why They Lead.

Our circulars give other reasons.

THE PACKARD ELECTRIC CO., 342 Dana Ave., Warren, Ohio



We shall exhibit in space No. 49 at the National Electric Light Association Convention to be held at the Medinah Temple, Chicago, Ill., June 2nd to 6th, inclusive.





## G. V. ELECTRIC TRUCKS

Give you 10 or more years' life. Are clean, silent, and odorless.

Operate 297 days out of the 300.

Show economy in tires, parts replacements and general upkeep over a period of years.

Promote the highest efficiency in systematic trucking, transfer work and light deliveries.

Make possible undreamed-of economies in real estate investment covered by stable and wagon yards.

Design standardized since 1907. All parts of each model interchangeable. Nearly 3000 in use, many ten years old.

The ex-teamster and the simple Electric are a saving over the complex motor vehicle and the expert chauffeurmachinist.

The Electric has economic law behind it and must dominate in its field. Show your business acumen by getting the right machine for the right place.

Six capacities: 750 lbs. to 5 tons.

Catalogue 102 on request.

## General Vehicle Company, Inc.

General Office and Factory: Long Island City, N. Y.

New York

Chicago

Boston

Philadelphia

nio

electrical transmission line, from which Mr. Bliss buys what electricity he requires, is similarly equipped. The light and power company brought the electricity to the house and wired the premises for a total cost of \$42. Twenty-seven fifty-watt lamps are used in the house, barns and yards. The ¼-horse-power motor Mr. Bliss installed himself. It is bolted to the side wall and belted to a small counter-shaft from which the cream-separator, washing machines and tool-grinder are driven. The separator is securely bolted to the floor near the counter-shaft and the washing machine and tool-grinder are set up when needed. To secure the washing machine to the floor while it is in operation an ingenious application of common sliding door-bolts is used. A bolt is screwed to the bottom of each leg and shoved down into corresponding holes in the floor so that the machine cannot slip and 'walk' away from the belt. An electric flat-iron is also used to iron the clothes after the washing is done.

"On the farm of John R. Rush, also in Illinois, a ½-horse-power electric motor drives a long line shaft in the basement of the house to which are belted a washing-machine and wringer, a pump and a toolgrinder. The original cost of this motor was less than \$60 and hardly a dollar's worth of electricity a month is consumed. And for this cost it washes the clothes, wrings them out and keeps up a continuous supply of water. It is also used to drive the tool-grinder, which is no small task on any general-crop farm.

"It is hardly good economy to install a small motor solely for the purpose of driving

"It is hardly good economy to install a small motor solely for the purpose of driving the separator because the same motor can be used for many other chores. Sharp tools mean efficiency in farm work, and a small tool-grinder can be easily attached to the motor and will quickly demonstrate its worth."

#### Electric Fire Station

The fire station at the corner of Belgrade and Clearfield Streets, Philadelphia, Pa., is to be a complete electric station. Already an 85-foot electric truck has been installed, which is said to be the largest of its kind. The truck is provided with an electric motor in each wheel, and there is an electric device for hoisting the ladders. The entire equipment of the station eventually will be electric.

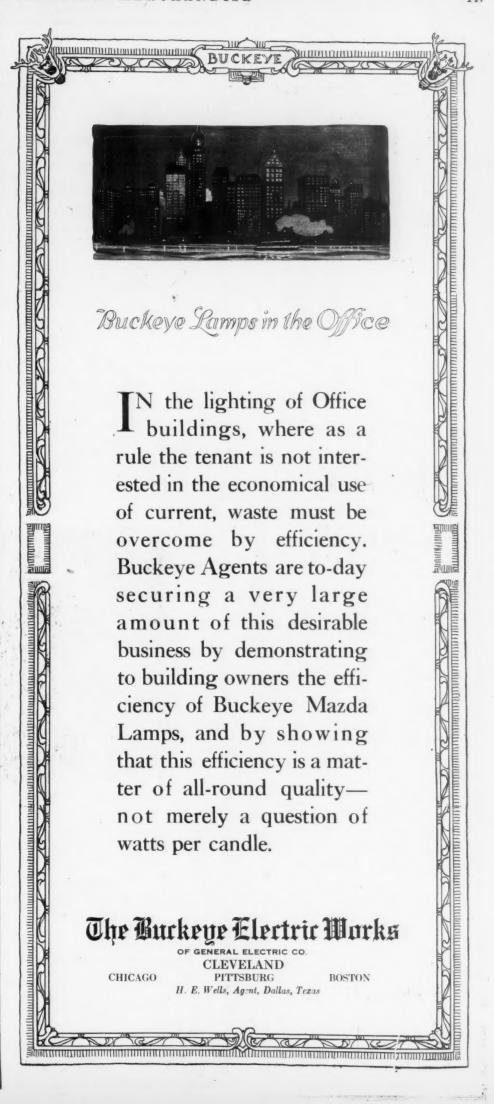


## Collecting Illustrations for Power Prospects

By R. LOUIS LLOYD Commercial Department The Philadelphia Electric Company, Philadelphia, Pa.

Whenever we see an illustration which clearly shows some special use of the electric motor or one operating under unusual conditions, or any interesting application of motors to machines, we cut it out and mount it on a card for our filing case.

Our series of illustrations collected this way makes a valuable adjunct to our equipment and is handy for reference. It can be of great service in explaining to a prospect just what is best along the line under consideration. Many people can understand more readily when the thing can be seen, and it helps to close contracts. It is also an education for the solicitor in training.





For sale by all Ejectrical Dealers BENJAMIN ELECTRIC MFG. COMPANY 128-128 So. Sangamon St. Chicago

# Sterling Lamps

are Standardized Lamps with a big market already developed for them.

It took money, thought, patience, and hard work to put these lamps where they are today—to make them the flawless product they are and to work out the cooperative selling plan that has made their market.

It's a plan that's guaranteed to increase the Sterling market in your territory. Don't waste this opportunity.

#### Sterling Electric Lamp Works

of General Electric Company Warren, Ohio

## Manufacturers' Cooperation

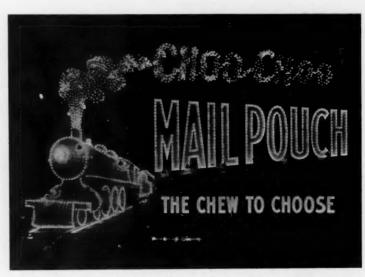
[Under this heading will appear from time to time, accounts of what the manufacturers throughout the electrical industry are doing to help in the retailing of current and appliances. Too many central station men and contractors view these efforts of the manufacturers, if not with suspicion, at least with indifference. This is the wrong attitude. The manufacturers, naturally and rightly, are interested in selling their wares, just as you are interested in selling yours, but as a general thing their propositions are made in a broad spirit of cooperation and with the view to developing the industry as a whole. Every such offer of cooperation is an opportunity. Don't worry about what the manufacturer gets out of it: look at it with a microscope to see what there may be in it for you. Fifty times out of every forty-nine, you'll find a profit for your till in the manufacturers' cooperation.—Editor.]

#### How the Flasher Manufacturer Can Help

As more and more dark and backward towns throughout the country become electrified into brightness and progressive ways, it becomes correspondingly clearer that the central station, the sign manufacturer, the flasher manufacturer and the local business man form a closely welded chain of cooperation. It is easy to follow out this chain, link by link.

Imagine a new central station trying to break into a town that has always believed in the "old ways." It will take a combination of unusual strength to puncture the crust with any degree of rapidity. For electricity is the most advanced commodity of the age, and it is hard to rouse the sluggish spirit or wear down the prejudices of old or

prising merchant in town that finally swept the whole town into line: or it may be that he has been called upon to take the town from one business end to the other and make a Great White Way of it—make it the best lighted, the most uniquely lighted, the most beautifully lighted community in the State or the whole section of the country, But where would he be if the flasher mechanism failed him?-if the flasher manufacturer failed to grasp the spirit of his design and to supply those effects that give life and movement to striking sign displays? The cooperation of the flasher manufacturer is as indispensable to the sign maker as the cooperation of the central station, the sign man and the flasher man is to the local merchant, manufacturer or mill owner, who hopes by means of a new and novel sign to



This sign success in Indianapolis illustrates how the sign and flasher makers help the customer

backward communities. For the central station alone, it very likely would prove slow, discouraging, uphill work. But when he campaigns the town in cooperation with the reliable sign manufacturer, results are invariably surer, swifter, more satisfactory.

You will see this on the night the new central station holds its opening. For simultaneously with its own new sign, the new signs on many old and substantial business homes of the town will flash forth the signal that the old ways have been swept aside, and that the town already has been at least half won for the central station. Thus the first link in the cooperative chain has been established.

The reliable flasher manufacturer forges the second link. For where would the sign manufacturer of today be without him? It may be the very sign that he designed, installed and got burning for the one enter-

sound a fresh note of stability and progressiveness throughout his community.

Betts & Betts of New York City, manufacturers of the well-known Betts flashers, recently won a success in Indianapolis that illustrates how the sign and flasher makers together help the customer, and through him the central station. As shown in the illustration, the sign is an immense electrical advertisement for "Mail Pouch" tobacco. It is 57½ feet long and 35 feet high, and it contains over 2,000 lamps. Nine reflectors are used. The height of the locomotive is 18 feet, and the height of the "M" in "Mail Pouch," 13 feet. The action of the sign is as follows:

The engine outline comes on, remains stationary for a moment, then the wheels begin slowly to revolve. At the same time, smoke rolls up from the smokestack, and apparently drifts back to the letters "Choo

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Choo," which are brought on one at a time. Meanwhile, the wheels and track are speeding up so that the train appears to run at full speed. Finally, the words "Mail Pouch" appear, followed by the line reading, "The Chew to Choose."

By a close study of the smoke forms in connection with the manufacturer's form of flashing mechanism, and by using a system of wiring considerably out of the ordinary, Betts & Betts were able to obtain an effect of rolling, puffing and waving smoke very different from anything of its kind that had been secured heretofore.

The Thomas Cusack Company of Indianapolis built the sign, and it is interesting to note how many processes were necessary before the sign could be up and burning. First, E. E. Faver, the designer, worked out and developed the idea. Then, from a paper drawing, Guy L. Willett, Superintendent of the Indianapolis Cusack plant, engineered the building of the sign, worked out every little wiring detail, erected it on the roof, and connected it with the flashing mechan-The flasher for the sign was built more than a thousand miles away from the installation. Yet Mr. Willett wrote the Betts Company that this complicated sign, with its 2,000 lamps, had been lighted the first night without a hitch, and that its unique features had aroused the most favorable comments. Walter Scott, the engineer of Betts & Betts, who was responsible for the large electric secondary clock of the Edison Electric Illuminating Company of Boston, and many other successes, designed the "Mail Pouch" flasher.

The many large sign installations of this country have been accomplished only after hard toil and difficulty. And the initial lighting of the big displays is always so widely advertised, and is always such a public event, that it would be almost fatal to have the affair "fizzle out." The sign manufacturer and the flasher maker, although they may be thousands of miles away from the scene of the installation, must be sure and infallible. Their cooperative endeavor means everything to the customer, and to the central station who, with an eye to the value of the sign load, is naturally anxious to gain the benefit from every successful sign installation in his town. He, personally, cannot afford to have any of them go wrong.

## GRZENWOOD ADVERTIBING COMPANY "fadividuality"

MANUFACTURERS OF ELECTRIC BIOMS

Enexville, Tennessee

( #1, TO BE WRITTEN ON YOUR LETTERMEAD.)

Dear Sir,

A City is known by its Lights.

This is no more Figure of Speech - the Stranger Flees the Unlighted Town as though it were a Grave Yard, and for much the same reason.

Athens is Sitting up and Rubbing its Ryes -Let's make it a Real Asskening - What's the use of saying we Can't when Little, Disky places are Boosing things and Boosing them Strong.

Electrical Advertising has played an Important part in the Awakening of Many Cities and a large share of their Advancement is due to its Liberal Use.

Phone us for a Color Design of your ideas of an Electrical Sign.

Yours for a Bigger, Better and Brighter Athene,

ATHEMS RAILBAY & MEMOTRIC CO.

Sales Manager

The Greenwood Advertising Company furnishes five letters like these to central stations to be issued on their own letter heads.

#### Greenwood Letter Service

The Greenwood Advertising Company of Knoxville, Tenn., follows a plan of cooperation with lighting companies, which although not new, has proved stimulating and has led to good results.

About a fortnight before the Greenwood salesman visits any given city, the company sends an advance notice to the local central station and suggests the advisability of a direct-by-mail advertising campaign before the salesman arrives. With its letter of suggestion the Greenwood Company encloses five sample letters, which it is proposed to mail to prospective sign customers. The letters are dated from two to three days

The lighting company is asked to supply the necessary letter heads and envelopes, together with a list of prospects and street addresses; also to make any changes in the letters that may be desirable to fit local

The manufacturers agree to multigraph the letters, address the envelopes and return them for the signatures. All it costs the central station is the time consumed in signing the letters, the value of the stationery and a two-cent stamp for each letter that is sent out.

The Greenwood Company supplements

tor of the central station will try and arrange with all the families in his territory for a Monday morning free wash and demonstration of the possibilities of the electric

## GREERWOOD ADVERTISING COMPANY "Judividuality" MANUFACTURERS OF ELECTRIC BISMS

(#8. TO BE WRITTEN ON YOUR LETTERHEAD.

Maybe the Other Fellow is doing all that You are and Doing it Better - maybe he turns the Same Stock over Two times to your One - it may not mean that he is a Better Man, but it Does Mean that you are not Pairly treating Your Dusippess or yourgelf

If the Other Pellow uses Electrical Advertising, Use it Yourself for the same reason that He Does.

Does.

If you think he is a Better Business Man, use it because He Does.

Many Men Succeed by Imitating Success.

Telephone us for a Proposition for an Electric Sign to fit Your individual Business.

Yours for a Brighter Athens.
ATHEMS RAILWAY & ELECTRIC CO.

Sales Manager

The Cooperative work of the Greenwood Company, of which the letters were one link, helped to win the town of Athens, Ga.

GREEKWOOD ADVERTIBING COMPANY
"Judividuality"
MARUPANTERIES SV ELESTRIC SIGNS

Keantille, Tennesses

( #2, TO BE WRITTEN ON YOUR LETTERHEAD. )

ear Sir,

As a matter of Municipal Investment there is Mothing that brings as Sure Returns as the Spectacular Lighting of the Business Streets

Electric Advertising will not only help your Own Business but adds to the Prestige of Athens. People looking for a Flace to Locate their Homes or Factories and Invest their Money Flee the City of Unknown Electric Sign

Lack of Such Things means Business Stagnation We are anxious to make you an Electric Sign proposition,

Yours for a Bigger Athens,

ATHEMS RAILWAY & ELECTRIC CO.

Sales Manager. WBH/D

The Greenwood Company supplements the central station series with letters mailed direct from its office.

the central station letter with a letter direct from its own office to the same list of prospects, boosting its electric signs and, in most cases, sending a copy of its catalogue. About the day that the last letter is sent out, the Greenwood salesman swoops down on the town. He usually places a number of good orders for signs for his company, while at the same time he increases the central station load.

The lighting companies in nearly every case seem very anxious to cooperate with the Greenwood Company, and the plan has been found to be a very good one for both.

Free Electric Wash Day for All Denver.

Monday mornings are soon to be free electric wash days for every family in Denver, Colorado, that cares to avail itself of an unusual opportunity. The idea comes from Neil C. Hurley, president of the Hurley Machine Company of Chicago, manufacturers of the "Thor" electric washing machine, and has been enthusiastically adopted by the Denver Gas & Electric Company. Fourteen "Thor" washers will be used on electric wash day.

Here's the plan of action. Every solici-

washing machine as a work-and-worry reducer. A "Thor" machine will be brought to the home of every housewife who catches the spirit of the proposal, and a demonstrator of the Denver Gas & Electric Company will personally do the washing. After the "electric wash" is over, the machine will promptly be removed. However, if the demonstration of the merits of the electric washing machine "creates a desire" in the prospect, she may purchase the machine in the regular way. That part is left to Kennedy and the solicitors.

Three things stand out between the lines of this story. First, the novelty of the idea; second, the appearance of a central station that is broad-gauge enough to cooperate with the manufacturer of the electric device; third, the suggestion of cordial relations between central station and the public. Central station demonstrators are going, with their electric washing machines, into as many Denver kitchens as will receive them. The whole affair will be extremely intimate and democratic, and as far removed from the traditional standoffish attitude of the public utilities as it possibly could be. It should touch the human side of Denver people; it should amply demonstrate the various values and economies of the electric washer; and it should sell many "Thor" machines in Denver and make the electric wash a powerful near-future load factor for the Denver Gas & Electric Company.

3,000 copies "Electric Vehicle Number" of Electrical Progress now can be had at this office at greatly reduced price.

It's a strong, snappy, suggestive aid to your vehicle load. Use it.

Write

The Rae Company

17 Madison Avenue, New York City

#### An Electric Truck for Hauling Poles

The Philadelphia Electric Company has adapted the electric truck to a new use hauling poles. This innovation not only has meant much saving of time and labor over the former method of hauling poles by horse, but the central station is proving to Philadelphia business men, by the power of its own example, that the electric truck has limitless practical possibilities. It's the old proposition of association of ideas. Philadelphia people readily connect the central station truck with the central station vehicle load. Using a truck itself, the Philadelphia Company has a betterthan-average opportunity to induce others to buy a truck not only for established service, but for new service similar to its own.

The distribution of wooden poles has always been one of the most troublesome problems confronting the transportation department of the Philadelphia Electric Company. This has become more serious in the last few years, owing to the rapid increase in the use of excessively high poles, due to the extension of high tension transmission lines, which necessitates the placing of such wires over the wires of all other companies, and over railroad crossings at a clearance not less than 30 feet above the rails. It has been the practice of the company to distribute such poles by the use of horsedrawn trucks, the rear wheels of which are rigid, and for this reason turns must necessarily be made in a very large radius. Some of the poles used are 90 feet long and are very difficult to handle in congested sections of the city. In making turns consideration must not only be given to the length of the poles, but also to the space occupied by two or more horses in tandem. Sometimes the

length of street occupied by the loaded vehicle and horses is as much as 130 feet.

With these facts in mind, the Philadelphia central station had an electric truck designed and built by the Commercial Truck Company which offered a number of advantages. In the first place, the space occupied by the loaded truck is limited to the length of the poles, it being provided that the poles shall overhang at both the front and rear ends. Furthermore, the truck is designed to turn in a comparatively steer being used only when short turns are necessary. The difficulties inherent in a pole truck, such as the turning of the wheels in opposite directions when unloading at the curb line, are thus obviated. On account of the greater weight on the front wheels when the truck is running empty, the brakes were made to operate the front wheels, as well as the rear wheels, in order to eliminate any tendency to skid.

The loading and unloading of poles is accomplished by an electric winch located



This sturdy electric truck hauls poles for The Philadelphia Electric Co., and it makes a good central station ad.

small circle, covers more ground at a greater speed than a horse-drawn vehicle, and is so constructed as to permit of the loading and unloading of poles by electric power.

The rear wheels are steered from the side of the truck, the steering mechanism being so arranged that it can be locked when the wheels are in neutral position. Thus the truck can be controlled entirely by the front steering mechanism, the rear

in the centre of the truck. This winch is wired so that it can be controlled from switches under the seat or from either side of the truck at the motor, and when in operation the control of the truck itself is cut out. By means of this device, poles may be placed in any position on the truck and even when the truck is partially loaded, additional poles can be placed at the top of the pile. Another advantage is that two men can load and unload poles much more rapidly this way than four men could by former methods.

The truck has a capacity of six tons, and weighs, unloaded, about 12,000 pounds. The truck is operated by four-motor drive, and the batteries are located in a compartment under the bed of the truck in front of the center. A compartment to the rear of the center is utilized for carrying tools, such as cant hooks, short skids, and rope. The weight of the steel used in the construction of the truck was 5,750 pounds, while there were 1,750 pounds of rubber

## What We Did In SCRANTON, PA.

## We Can Do For You-In Proportion

We put our men into the territory of the Scranton Electric Company on March 15, 1911. In two years, we connected 2222 small homes and stores.

These 2222 customers could not have been secured without a flat rate controlled by the Excess Indicator.

Moreover, throughout this period we worked, gains in meter accounts have increased more than normal.

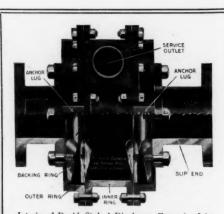
In your city hundreds of similar small homes and stores are now beyond your reach. We can make them profitable customers for you—just as we did in Scranton.

Let us give you the figures—the evidence—the signed statements of the Scranton Electric Company officials.

## **EXCESS INDICATOR COMPANY**

Westinghouse Bldg.

Pittsburgh, Pa.



Interior of Double Style A Diaphragm Expansion Joint (Packingless)

#### CENTRAL STATION STEAM CO.

DETROIT, MICH.

Equipment and Supplies for Central Station Heating Plants.

Condensation Meters, Underground Fittings, Etc.

SEND FOR BULLETIN NO. 7.

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utilized in the tires. The length over all is thirty-one feet six inches. The wheel

base is twenty feet.

The advertising value of the new truck unquestioned. The name of the company is unquestioned. The name of the company is conspicuously displayed as well as the company's motto, "If it isn't electric, it isn't modern." It stamps the central station with an enterprise that appeals to progressive business men. More to the point, it draws these men into asking ques-They want to know all about it, how it is operated, its features of economy, and the other points. Such men make the best kind of material for solicitation, and the beauty of it is, they come first-hand to the central station.

#### **Electricity Cleans Berlin Streets**

Berlin, Germany, should now be a genuine "spotless town" for its street cleaning department utilizes eighteen electric combined sprinkling and scrubbing machines driven by storage battery. The total daily cost for operation and maintenance is \$4.41 for each machine, whereas each of the old horse-drawn machines represented a cost of \$4.57 per day. Statistics, with respect to ground covered per day, are also all in favor of the electric machines; 55,496 square yards versus 44,013 yards of street covered per day being the figures. electric machines, therefore, are said to do twenty-six per cent more work at about four per cent less cost than the horse-drawn The machines are said to work machines. satisfactorily; so much so, in fact, that the installation will be increased.

Flood Cripples Flat Iron Plant in Dover

The entire electric flat iron plant of the Dover Manufacturing Company of Canal Dover, Ohio, was washed away by the recent floods, with a loss amounting to more than \$20,000. Although this disaster has



A flood-crippled manufacturing plant.

set back his business for a year, as he will be unable to resume the manufacture of electric flat irons on a large scale until a new factory can be completed, President Charles T. Johnson takes a cheerful view of the case. Fortunately for his company, the main factory, where the asbestos sad-iron is made, was practically uninjured by the flood.

#### Boston to Have Great White Way

That section of Boston's beautiful thoroughfare, Huntington Avenue, which extends from Copley Square to Massachusetts Avenue, is to be transformed into a great The Huntington Avenue Imwhite way. The Huntington Avenue Improvement Association is the responsible party and the plan is to replace the brilliant lights that illumined the avenue during the Electrical Show last September. However, the lights will be white rather than in the colors of that occasion. It is understood that merchants and property owners of Boston have come to see the importance

of adequately lighting so important a section of the city, and that they will purchase the lamps and present them to the city. every town need, but does not always find available, at least in such handy and succinct form.

#### Applying the Electric Pump to Country Water Needs

By Whiting Geer Sales Dept., The Lowell Electric Light Corp., Lowell, Mass.

Has the average central station overlooked the great opportunity offered by farms and country homes? Certainly not, as far as lighting is concerned—but how about the power, power for pumping water? Is it strange that country people should prefer water service furnished by a one-half or one horse-power motor in place of the unreliable and squeaky windmill or antiquated well? Is it strange that these country homes should welcome the opportunity to be free from the burden of conveying water by pail to the kitchen stable, or garden? Is it to be wondered at that they should welcome an electric pump which automatically furnishes water from well or brook to a supply tank in the cellar or garret-"water on draught"-day or night, winter or summer equal to any city water service and better than some? You must agree it is not, but the pertinent question is, Has this field been sufficiently advertised or solicited by the average central station?

We think not. We have tried it out for ourselves, and we are convinced that the farm today presents a big pump load opportunity that should be eagerly embraced. And when you approach the farmer on the subject of electricity on the farm, he will tell you, if you can get him to talk, that an easily obtainable water supply for both farm and home use is one of the first electric

possibilities he thinks of.

A year ago this company was agreeably surprised by the results of a little advertising on this subject, and since then each weekly series of newspaper ads have proven that this advertising opened up a practically new field, excellent business and many brand new customers. The newspaper copy received the support, each time, of a simple window display which a local pump manufacturer gladly constructed for us. This consisted of a one-half horse-power motor geared to a small pump and mounted on a plain and substantial platform. While the device proves a trifle too noisy to permit its operation in the window, with good live display cards, it is capable of attracting considerable attention.

The time is now ripe. Let us direct our attention to these country homesteads.

Seizing the Auto Show Opportunity

The Dayton [Ohio] Power & Light Company evidently believes in striking while the iron is hot. It recently took advantage of the display of electric vehicles at the Dayton automobile show to distribute a number of folders, covering points of interest, to prospective users of electric vehicles. Thus the central station covered the local field cooperatively with the manufacturers. The folder included the schedule of rates for private charging service at Dayton, described local public garage service available, listed the 130 electric vehicle owners in the city with their addresses, makes of cars, etc., and briefly enumerated the advantages of the electric vehicle. The idea was a timely one, and by clearly indicating its service charges and the reasonableness of the same, the Dayton central station certainly supplied the very information that electric vehicle prospects in

available, at least in such handy and

#### Arthur J. Sweet

Arthur J. Sweet has resigned his position of commercial engineer of the Holophane Works of General Electric Company to become a member of the firm of Vaughn & Meyer, consulting Engineers at Milwaukee, Wis. Mr. Sweet has devoted the past five



A. J. Sweet.

years to research and commercial development work in the field of illuminating engineering. Railway lighting has been his recent specialty, and last summer he was the consulting engineer in direct charge of the extensive research work on postal car lighting which was conducted at Washington, D. C., under the auspices of the Baltimore & Ohio R. R. Mr. Sweet will handle the illuminating engineering practice of Vaughn & Meyer.

#### Charles M. Duncan

Charles M. Duncan has succeeded W. Corson as manager of the Arvada [Col.] Electric Company.

#### J. C. Anderson

J. C. Anderson has been appointed manager of the Monte Vista [Col.] Light, Heat & Power Company to succeed N. H. Chap-



#### Mammoth Central Station Sign in West Virginia

The central station sign shown in the picture was erected on a bluff directly opposite the city of Bluefield, W. Wa., which is properly called Stony Ridge. sign is of immense size, 130 feet long with 8-foot letters. It is strongly effective, and quite dominates the city. The sign is quite dominates the city. The sign is attached to fourteen 40-foot poles which are set ten feet apart, in solid rock. These

The sign, which was built by the Greenwood Advertising Company of Knoxville, Tenn., has aroused considerable comment, not only because it is effective but because its unusually favorable location readily brings it to the eyes of all who pass through the town. The Appalachian Power Company is one of the Byllesby properties. It is supplying electric power to a large mining and industrial territory in Virginia and West Virginia.



This imposing central station sign is chained to a bluff opposite the city of Bluefield, W. Va.

It dominates the view from within.

poles, although they average forty feet in length, really are of slightly varying lengths so as to conform to the rough topography of the hilltop. There are 1,111 5-watt tungsten sign lamps used in the display, those in the letters burning steadily, while those used in the special effects are operated by a flasher. The effect below the name represents a motor driving a pulley, while that above the name represents flames rising from a pot of oil.

Thirty-fifth .

#### M. P. Jemison

M. P. Jemison, formerly vice-president of the Tuscaloosa [Ala.] Ice & Light Company, succeeds Robert Jemison as president of the company.

#### W. A. Watts

W. A. Watts has been appointed newbusiness manager of the Lancaster [Ohio] Electric Light Company, succeeding Thomas O'Rourke.

## Conventions of the Association

When and Where They Have Been Held

First	,	Chicago, February 25, 26, 1885
		New York, August 18, 19, 20, 1885
Third		Baltimore, February 10, 11, 12, 1886
Fourth		Detroit, August 31, September 1, 2, 1886
Fifth		Philadelphia, February 15, 16, 17, 1887
Sixth		Boston, August 9, 10, 11, 1887
Seventh		Pittsburgh, February 21, 22, 23, 1888
Eighth		New York, August 29, 30, 31, 1888
Ninth		Chicago, February 19, 20, 21, 1889
Tenth		Niagara Falls, August 6, 7, 8, 1889
Eleventh		Kansas City, February 11, 12, 13, 14, 1890
Twelfth		Cape May, August 19, 20, 21, 1890
Thirteenth .		Providence, February 17, 18, 19, 1891
Fourteenth .		Montreal, September 7, 8, 9, 10, 1891
Fifteenth .		Buffalo, February 23, 24, 25, 1892
Sixteenth		St. Louis, February 28, March 1, 2, 1893
Seventeenth .		Washington, February 27, 28, March 1, 2, 1894
Eighteenth		Cleveland, February 19, 20, 21, 1895
Nineteenth .		New York, May 5, 9, 7, 1896
Twentieth .		Niagara Falls, June 8, 9, 10, 1897
Twenty-first .		Chicago, June 7, 8, 9, 1898
Twenty-second		New York, May 23, 24, 25, 1899
Twenty-third		Chicago, May 22, 23, 24, 1900
Twenty-fourth		Niagara Falls, May 21, 22, 23, 1901
Twenty-fifth		Cincinnati, May 20, 21, 22, 1902
Twenty-sixth		Chicago, May 26, 27, 28, 1903
Twenty-seventh		Boston, May 24, 25, 26, 1904
Twenty-eighth		Denver—Colorado Springs, June 6, 7, 8, 9, 10, 11, 1905
Twenty-ninth		Atlantic City, June 5, 6, 7, 8, 1906
Thirtieth		Washington, June 4, 5, 6, 7, 8, 1907
Thirty-first .		Chicago, May 19, 20, 21, 22, 1908
Thirty-second		
Thirty-third .		
Thinks Chil		Souttle June 10 11 19 19 14 1019

Seattle, June 10, 11, 12, 13, 14, 1912

#### Nicholas F. Brady

Nicholas F. Brady has succeeded his father, Anthony N. Brady, as president of the New York Edison Company. Mr. Brady, who graduated from Yale in 1905, is one of the youngest men in the country to be placed in such an important position. The elder Brady becomes chairman of the board of directors.

#### B. S. Josselyn

B. S. Josselyn has resigned as president of the Portland [Ore.] Railway, Light & Power Company. His resignation becomes effective July 1.

#### "The Remarkable Growth of an Idea"

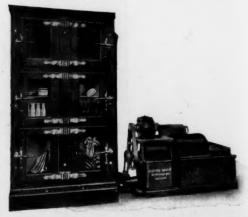
"The Remarkable Growth of an Idea" is a readable booklet issued by the American Electric Company of Chicago, Ill. A page preface is devoted to a description of how the principle behind the Burns Adjustable Telephone Bracket was found to be so useful that it quickly spread to a large variety of labor—and time-saving articles. The body of the publication is given over to lucid description of the Burns' Telephone Bracket, Radio Telephone Holder, Burns' Resonator Bracket, Chicago Directory Holder, copy book holders, American Beauty Mirrors. Germproof Glass Mouth-Beauty Mirrors, Germproof Glass Mouthpieces, portable lamps, light brackets and other similar lines. The booklet is profusely illustrated.

#### A Useful Machine for Small-Scale Refrigeration

Wherever there is a demand for largescale electrically-driven refrigerating machines in this country, that demand can be amply cared for by the number of excellent amply cared for by the number of excellent models now on the market. But it has not been so easy to provide low priced, yet adequate installations, for private homes, apartment houses, clubs, cafes, hotels, hospitals, butcher shops and other institutions of this kind. The Audiffren-Singrun Refrigerating Machine, which recently was placed on the Amercian market, is said to meet the increasing demand for a small refrigerating machine perfectly. The ma-chine was first introduced in France over seven years ago, and has been well tested.

Preferably driven by electricity, this machine is said to offer considerations of economy, ease of operation, cleanliness, and moderate cost, that are most appealing. It operates on the compression system, using sulphur dioxide as refrigerating agent.

The H. W. Johns-Manville Co. are sole selling agents for this machine. This concern has just issued an interesting catalog on the subject which they will forward to anyone upon request, and from which complete description of the method of operation can be obtained.



The Audiffren-Singrun Refrigerating Machine at Work.

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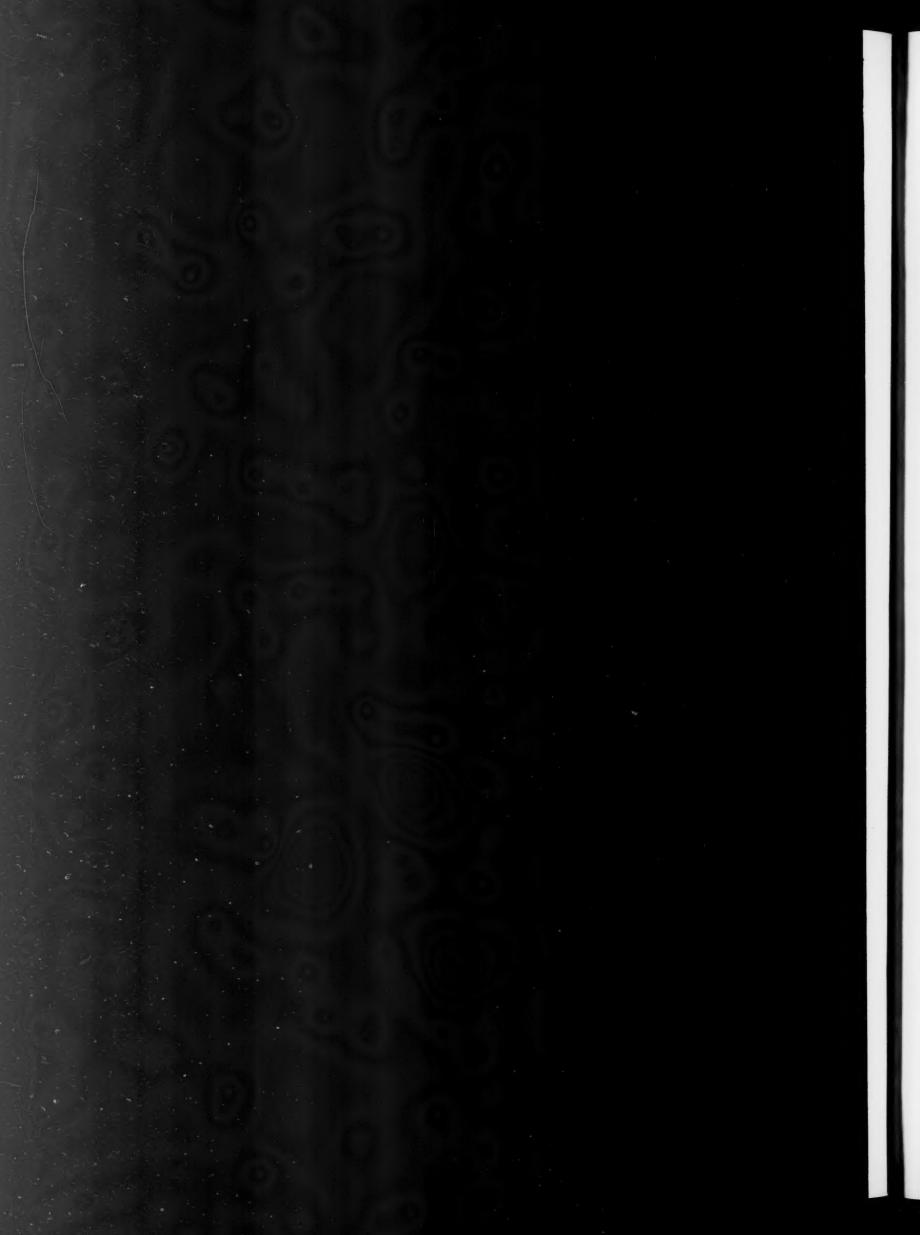
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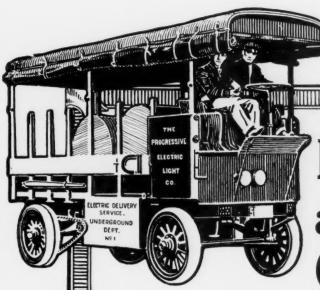
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Work.





# Electric Trucks are best for any Central Station

## -most efficient and most economical

The Central Station that does not use Electric Trucks is overlooking a big factor for its own betterment. Electric Trucks are most perfectly adapted to the outdoor work of electric lighting companies. They are power plants on wheels—ready always to do their work cheaper, better and quicker than any other type of vehicle. Here are some of the uses to which any Central Station can adapt Electric Trucks:

- 1. General hauling of all kinds.
- 2. The hauling of heavy material, such as transformers, reels of cable, etc., in which the electric winch is indispensable.
- 3. The application of the electric vehicle in the construction of aerial lines, where electrically operated cranes are used for erecting or removing poles, transformers, etc.
- 4. The use of the electric vehicle in underground work for the drawing in and out of cable and pumping out of manholes.
- 5. The use of the electric tower wagon for trimming of arc lamps, etc.
- 6. The adaptability of the electric vehicle as an advertising medium.

Small electric wagons are used by many companies for the delivery of lamps, meters, etc. These wagons are equipped with crates, etc., and have excellent advertising value as well as giving efficient, economical service.

### Your use of Electric Trucks recommends them to others

Once the vehicle users in your locality see that you have confidence in Electric Commercial Vehicles, it will be easy to induce them to follow your lead.



Of course, you know the value of a vehicle charging business in making off-peak hours profitable. Why not boost Electric Vehicles with this end in view?

## ELECTRIC VEHICLE ASSOCIATION OF AMERICA

**BOSTON** 

NEW YORK: 124 W. 42nd St.

(3) CHICAG

## c-w "REMEK" c-w



The Remek Line

The REMEK type of transformer has the lowest average core loss of any lighting transformer on the market. This is a statement of fact and we are prepared to back it up with proofs. The REMEK core construction is unique and the REMEK transformer is only manufactured by the

## CROCKER-WHEELER CO.

We have prepared an attractive illustrated booklet which describes the details of REMEK construction and explains its many advantages. It tells why the REMEK transformer is equally well adapted to lighting or motor loads. It shows how the REMEK parts are more easily accessible, and the transformer as a whole more easily dismantled, than any other transformer on the market. If you are selling or using electricity this information may be worth dollars and cents to you.

WRITE TODAY FOR BOOKLET 151 G

#### CROCKER-WHEELER CO.

#### AMPERE, N. J.

#### Ampere, N. J. Baltimore

Baltimore Birmingham Boston Buffalo Chicago Cincinnati Cleveland

Denver

Detroit Houston Indianapolis Los Angeles

OFFICES AT

Newark New Haven New York Philadelphia Pittsburg
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